PART I.

INTRODUCTION

TO THE

ADMINISTRATION REPORT FOR BRITISH BURMA
FOR THE YEAR 1880-81.

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In the subsequent chapters of this report figures and facts are given for the official year 1880-81 in respect of Administrative and Revenue Departments, and for the calendar year 1880 in respect of the Judicial, Jail, and Police Departments. In the present introduction attempt is made to bring the review of administrative affairs down to the time of writing, that is, to the autumn of 1881. Rupees are throughout converted into pounds sterling at the conventional rate of Rs. 10 for 1£ sterling.

The census.

2. One of the most interesting and important operations of the year was the census, which in Burma, as in the rest of the Empire, was taken on the night of the 17th February 1881. The preceding census had been taken 8½ years before. The present census shows that during that period the population of British Burma has increased by 36 per cent. The normal rate of increase would thus be somewhat over 4 per cent. per annum. The rate of increase varies greatly in the different tracts, ranging from 81 per cent. in the fertile district of Hanthawaddy to 3 per cent. in the island district of the Arakan coast. The increase in population is divided among the chief races of the province thus :—

	Totals of 1872.	Totals of 1881.	Percentage of increase.
Burmans and Talaings	2,111,921	2,766,827	31·0
Karens	331,706	518,294	56·2
Chins	51,117	55,015	7·6
Toungthoos	24,928	35,554	42·6
Shans...	36,029	59,723	65·8
Other races of hill-men	31,242	27,598	... decrease 11·6
Races from India	137,014	246,289	79·7
Chinese	12,109	12,962	7·0
Europeans and Eurasians ...	9,177	11,860	29·2
Total of all races ...	2,747,148	3,736,771	36·02

Some part of the increase in the population is due to immigration from India and from the kingdom of Ava, whence people are attracted by the fertile soil, the high wages, and the favourable land laws of British Burma. The number of these immigrants may be judged from the census figures, which show that 541,743 of the inhabitants of British Burma were born outside the limits of the province, and that of these 316,018 were born in Upper Burma. But the main causes of increase are probably the fecundity and healthiness of the population. The proportion of the population who are returned as under 12 years of age is 33·6 per cent., which is considerable for a country where there are many adult immigrants. The lives and dwellings of the people may often offend against sanitary laws; at least one-half of the houses in the country are surrounded by water for some weeks in every year. But the large numbers of children, the low death-rates, and the rapid increase of the population show that the country is healthy. The heavy

rainfall, ranging up to 220 inches a year, and the frequent inundations wash the country-side and fertilise the land thoroughly during the months of July and August. High wages, bountiful returns to the farmer, plentiful food, and freedom from oppression combine to make the life of an ordinary Burman happy and comfortable. Young men and maidens make love and marry earlier than is usual in England; they manage these affairs for themselves after the fashion of some western nations; and there are in Burma no child-marriages or child-widowhoods such as are the bane of domestic life in India. Women in Burma occupy a much freer and happier position than they do in Indian social life. They go about; they do the shopping, both buying and selling; they manage the households; and in every respect they take an active part in domestic affairs. Industry and thrift among women is promoted by the custom whereby most girls, even in well-to-do families, work looms or keep stalls in a bazaar till they get married. The girls usually spend the profits of their undertaking on dress or personal adornment, and are not required to contribute their earnings to the common family purse. Among other consequences of this state of things may be mentioned the fact that the ratio of women to men prisoners is in Burma jails less than half what it is in Indian jails.

Proportion between sexes.

3. The males are 53·28 per cent. of the whole population, and 46·72 per cent. are females. The surplus of men is partly due to the large number of immigrant labourers. Immigrants from India, in the first instance, come alone without their wives; while immigrants from Upper Burma are not allowed to bring their families. Among the Karens and Talaings, whose numbers are rarely recruited by immigration, the distribution of sexes is less unequal. Among the Karens there are 49·99 females to 50·01 males. Fifty-two per cent. of all the males over 12 years of age and 2·8 per cent. of the women and girls over that age are returned as able to read and write. According to the census returns, 66 per mille of the total population are under instruction, mostly at the monastic schools, which form an important feature in the social polity of Burma. The Educational Department has cognizance only of schools at which 24 per cent. of the population are being taught.

Educational census.

Occupations and condition of the people.

4. About 11 per cent. of the population dwell in towns, and 68·56 per cent. of the people live by agriculture. There is an immense deal of petty trading all over the country. The amount of goods and produce that moves about the country in boats, in steamers, on the railway, in carts, on pack-bullocks, and on pedlars' backs is surprising for so small a population. Besides the goods and produce that come from, or are consigned to, the kingdom of Ava and Western China, British Burma exported £8,525,000 worth of produce, and imported £6,983,000 worth of goods during the past year, and received £780,000 of treasure more than she sent away. The imported articles consisted chiefly of luxuries rather than necessaries. During the past five years the average surplus of imported over exported treasure has been £1,340,000 a year. The greater part of this silver and gold is converted into ornaments by the Burmans and Karens. It would seem therefore that every household of six persons in British Burma must have spent on the average about £12 during the year 1880-81 on imported articles and jewellery. These figures indicate the existence of a high standard of

comfort among Burman families. There can be no doubt that the average income of a Burman family is very much higher than that of a family in continental India. The wages of unskilled labour range from five shillings a week at the slack season in Kyoukpyoo to twenty-five shillings a week in the busy season at the rice-ports. The average wage over the whole of Burma is probably about 7*s.* 6*d.* a week (or ten annas for each week-day), as compared with an average of about 2*s.* 3*d.* a week (or three annas for each week-day) in the rest of India. The earnings of ordinary cultivators are proportionately higher. Wealth, such as it is, is very widely distributed. The great majority of the people are comfortably off; but there are few rich people. Burmans as a rule do not save money. They are open-handed and lavish in their expenditure. They give away a good deal in charity to their monasteries and other pious institutions. They spend freely on dress, on jewels, and on entertainments. The pooays, or theatrical displays, which are given at the harvest-home and on other auspicious occasions in every Burman village, cost a good deal of money, but are much enjoyed by this pleasure-loving people. Outside the four seaport towns there are few Burmans who could raise £500 at a fortnight's notice. Even in Rangoon or Moulmein there are hardly a score of Burmans who could raise or whom the Banks would trust with £5,000. On the other hand, only a very small proportion of the people are in debt. Landholders sometimes get into debt when disease carries off their plough-cattle, and gambling lands a good many Burmans in difficulties. In a small tract, where special enquiries were made by the Settlement Officer, it was found that barely 20 per cent. of the Burman cultivators are in debt at all. We do not yet know for certain how far this freedom from debt is characteristic of cultivators all over the province. Judicial statistics show that suits for debt are few in comparison with the population, while the majority of decrees are settled out of Court. In ascertained cases it is found that the debt is often paid off after a single good harvest. Money-lenders of the ordinary Indian type are almost unknown in Burman villages. In Rangoon and other large towns a certain number of money-lenders from the Madras coast, *Chetties* as they are locally called, have established themselves; and at one time anxiety was felt lest the cultivators' lands should pass into the hands of these folk. Recent returns, however, show that there is no ground for such anxiety. Out of 6,833 cultivators in the neighbourhood of Rangoon town, whose holdings were verified last January, only 58 in all had mortgaged part of their holdings during the year, and in only 9 of these cases did the land pass into the hands of a Native of India. It is remarkable that though comparatively few people are in debt, yet the normal rate of interest is very high. Outside the seaport towns the rate ranges from two per cent. on the security of jewels to five per cent. per mensem on the personal security of landholders. On loans to fishermen, boatmen, and such like people, seven per cent., or even ten per cent., per mensem is occasionally charged. Loans at these very high rates of interest rarely run for more than six or eight months.

People are free from debt.

5. In all political or special questions which may arise in Burma it has to be remembered that there are no hereditary chiefs, nobles, or great landholders. Even in the Burman time the members of the royal family and the officials constituted the only aristocratic class. In British Burma the officials, the elders in the larger towns, and

Political feelings of the people.

a very few leading merchants are the only persons who are above the ordinary level of the lay population. The Buddhist monks are everywhere greatly respected, and the Buddhist abbots and archbishops are held in great veneration. But the religious do not exercise or pretend to much political influence. Regarding the political feelings of the people of British Burma, it is impossible to add much to what was said by the Army Commission of 1879 when they wrote:—

"The majority of the respectable classes are content with our rule, and would be unwilling to see it disturbed. Though there is no enthusiasm on their part for British rule, yet the people feel that they have prospered marvellously since annexation; and under ordinary circumstances, there is no quieter or more peaceful quarter of Her Majesty's Eastern dominions than the province of British Burma. At the same time there is an element of danger in the unsteady and excitable character of the people, among whom the prestige of the Court of Ava is very great, and on whom disturbances or troubles on the Mandalay border might re-act in an inconvenient and mischievous fashion."

Religions of the people.

6. Out of the people of British Burma, 87 per cent. returned themselves as Buddhists, 3·8 per cent. as worshippers of *nats*, or spirits, and 2·2 per cent., or 84,219 in all, as Christians. Burmans, Shans, Chinese, and Talaings are generally Buddhists; not more than 1,200 Burmans and a score or two of Chinese have embraced Christianity. Under the Burman rule, before Pegu was annexed by the British, there was a great gulf between the Karens and the Burmans. Karens feared the Burmese and looked upon them as oppressors. In those days the Karens clave to their fantastic rites by which they propitiated the sprites of forest and mountain, or the ghosts of departed men and animals. Since annexation the Burmans have not been able to oppress the Karens, who are now more and more generally adopting Burman ways, Burman language, and Burman religion. But the greatest change among the Karens has been wrought by the preaching of the missionaries, by whose agency Karens have been turned from *nat*-worship to Christianity. Foremost in this work have been American missionaries of the Baptist persuasion. Among the earlier missionaries the name of Judson was prominent. There are now attached to this communion no less than 451 Christian Karen parishes, most of which support their own church, their own Karen pastor, and their own parish school, and many of which subscribe considerable sums in money and in kind for the furtherance of missionary work among Karens and other hill races beyond the British border. Christianity continues to spread among the Karens to the great advantage of the commonwealth; and the Christian Karen communities are distinctly more industrious, better educated, and more law-abiding than the Burman or Karen villages around them. The Karen race and the British Government owe a great debt to the American missionaries, who have, under Providence, wrought this change among the Karens of Burma.

Dwellings of the people.

7. The Burmans are, as a rule, comfortably housed. There are very few masonry houses outside the large seaport towns; most houses are of timber or of bamboos. Timber is plentiful and cheap; and houses are built on piles, the height of which above the ground varies with the average depth of the inundations from the nearest stream

the great rivers houses are often built with solid posts and well-seasoned beams; they have plank floors, and are garnished with wood-carving and quaint pictures; and in every such house there will be at least one long-armed lounging chair, in which the master of the house takes his ease after the day's work. The houses of the Karens, who are less ready to spend money than Burmans, are usually poorer. In the recesses of the forest, where some of the Karens shift their dwelling-place every two or three years, a Karen settlement of 10 or 20 families all live together under a common roof, each family having one or more rooms opening on the common passage which runs between the two rows of rooms. These settlements, tehs as they are called, are usually on posts, some eight or ten feet above the ground, so as to be safe from evil beasts and noxious vapours. According to the census returns, 180,352 houses in Burma were built of timber and 531,963 houses of bamboos and thatch. Only 2,358 masonry houses are returned for the whole province.

Progress of the country since last census.

8. The increase of the population has been evidenced by the census figures. It may be well to notice how far the province has made progress in other respects during the last ten years. The total area of British Burma remains at 87,220 square miles. The progress of cultivation, trade, revenue, and public administration and the general prosperity of the province during the past ten years may be gathered from the following figures :—

			1871.	1881.
Cultivated area in acres*			2,090,386	3,518,685
Value of sea-borne trade.	Exports	£.	3,894,894	9,478,148
	Imports	,,	3,903,144	8,802,278
	Total	,,	7,798,038	18,280,416
Value of trade with Upper Burma, Siam, &c. ...		,,	2,341,009	4,045,198
Total rice exports in tons			487,162	892,262
Do. tonnage of sea-going vessels entered and cleared ...			1,286,624	1,949,247
Approximate number of boats plying on the rivers ...			60,329	65,000
Ditto ditto of steamers plying on inland rivers for hire			9	38
Miles of railway open for traffic			... 0	163
Do. of railway under construction			... 0	163
Do. of canal open for traffic			... 0	39
Number of civil suits decided in the year			31,804	31,026
Do. of murders, dacoities, and robberies reported in the year			407	278
Number of children in Government and inspected schools ...			2,456	85,930
Do. of patients treated in hospitals			49,016	108,782
Land revenue		£.	331,944	656,891
Fishery do.		,,	66,084	138,902
Forest do.		,,	81,812	151,661
Excise do.		,,	98,781	241,429
Capitation-tax		,,	221,105	288,804
Customs duties		,,	284,803	595,656
Stamp do.		,,	47,367	78,499
Postal and telegraph receipts		,,	20,602	36,238
Total general revenue, exclusive of railway receipts...		,,	1,232,066	2,164,067
Municipal revenues		,,	106,091	141,960
Local Fund do.				134,751
Port do. do.				80,308
Net earnings of railways during year ending in June 1881		,,	...	60,696
Percentage of net earnings on capital cost of railway ...			...	4·597 per cent.

* The acreage of cultivation is given in each case according to the returns of the Native revenue collectors for each period. The operations of the cadastral survey have shown that these figures are about 15 per cent. below the truth. But, for purposes of this comparison, the figures furnished by the Native officers are taken in each case.

It will be seen that the trade, the cultivated area, the revenues, and the means of communication have increased even more rapidly than the population. The litigation in the Civil Courts has not kept pace with the increase in the numbers of the people; but this is hardly matter for regret so long as the people are well-off and are not largely in debt. The decrease in the number of crimes of violence is satisfactory. The increase in land revenue is larger than the increase in cultivation, by reason of the enhancement of rates made in the delta districts two or three years ago. The highest rate of land revenue now paid outside towns is Rs. 3-0-0 per acre, while the report for 1871 shows the highest rate then paid to have been also Rs. 3-0-0. The increase in the capitation-tax has not kept pace with the increase in population, because the exemptions and remissions granted to men who are poor, elderly, or for other causes unable to pay, have been more liberal of late years. The increase in the customs duties is mainly due to extension of the rice export trade; the rates of duty on piece-goods and other imported commodities have been considerably reduced during the past ten years.

On the whole, British Burma appears to have increased rapidly in civilization, prosperity, and productiveness during the past ten years; and there is at present no sign of this rate of progress being arrested, for the improvement has been at least as great during the latter as during the earlier years of the decade. There is still room for great extensions of cultivation, if only immigrants would come to take up the land; barely 5,600 square miles are cultivated out of a total of 87,220 square miles; and vast areas of fertile soil, within easy reach of railways or navigable rivers, are available for the plough.

Legislation.

9. The new enactments that exclusively concern Burma are:—

The Additional Recorder's Act, 1880.
The Pegu-Sittang Canal Act, 1881.
The Burma Forest Act, 1881.

The first of these Acts set at rest certain doubts concerning the jurisdiction of the Recorder of Rangoon over European British subjects in the interior of the province, and took power for the temporary appointment of an Additional Recorder when occasion might require. The second provided for levying tolls on, maintaining, and protecting the Pegu canal. The Indian Forest Act of 1878 was not applicable to Burma; a part of the Burma forests came under the Forest Act of 1865, and a part was under no Act. The present Act is the outcome of several years' discussion; it will cause little change in the forest administration; it places matters on a firm basis; while it safeguards the rights and interests of the Karen tribes who have inhabited the Burma forests from time immemorial.

The other Acts of the year which affected Burma were:—

The Vaccination Act, 1880.
The Indian Census Act, 1880.
The Probate and Administration Act, 1881.
The District Delegates Act, 1881.
The Petroleum Act, 1881.
The Municipal Taxation Act, 1881.
The Indian Factories Act, 1881.
The Obstructions in Fairways Act, 1881.

None of these additions to the Statute-book had any considerable effect on the life of the people, or on the course of public business during the year. Proposals are under consideration for extending the Vaccination Act to the towns of Rangoon and Akyab. The census operations went off smoothly without any recourse to the Act. In future years people may perhaps avail themselves of the Probate and District Delegates Acts. The Petroleum Act at first somewhat disconcerted the important trade in American petroleum and in earth-oil produced in Burma. But the rules under the Act are made as little irksome as possible, consistently with the protection of the community from needless risks. The Factories Act applies to about 44 rice-mills and other establishments. In only two of these mills are children employed; there is no reason why the provisions about fencing machinery and reporting accidents should cause any inconvenience to mill-owners, and no fees will be charged under the Act. The Obstructions in Fairways Act enables the local Government to prevent ships throwing sand or stone ballast overboard into the channels leading into British Burma ports. In past years, before the use of water-ballast, much harm was done to the approaches of Burma ports by ballast thrown out of vessels.

The projects of law relating to British Burma which have been laid before the Government of India or the Legislature are :—

The Currency Act Amendment Bill.
The Burma Excise Bill.
The Burma Pilots Bill.
The Rangoon Water-works Bill.
The Burma Inspection of Engines Bill.

The Currency Bill provides for the establishment of a paper currency circle for the issue of currency notes in Burma. The notes of this circle will not be cashable out of Burma. The Burma Excise Bill has been merged into the new Northern India Excise Bill.

While suitable laws are passed and are from time to time made applicable to Burma, there has always been much difficulty and delay in getting these laws translated for, and made intelligible to, Native Magistrates and Judges or to the people. The Judicial Commissioner, after inspecting the local Courts, reports that Burman Magistrates are without translations of important Acts, or are working with laws that have been long ago repealed or revised. Competent Burmese scholars are available, and the staff of Government translators has been greatly improved and strengthened. It is hoped that in time translations will be published of all laws in force. Until this has been done, the usefulness of the laws will be much restricted in Burma.

Administrative changes.

10. The principal administrative change of the year has been the division of the Pegu Commissionership into two charges, one under the Pegu Commisssioner and one under the Irrawaddy Commissioner. The executive, revenue, and judicial business devolving on the Pegu Commissioner had for some time past exceeded one man's powers. In his division was collected 68 per cent. of the internal revenue, and in his division dwelt 61 per cent. of the population of British Burma. Both revenue and population were increasing much more rapidly in Pegu than in other parts of Burma; and already the business devolving on the Commissioner of

Pegu exceeded in amount and importance the work of the other two Commissioners together. One man could no longer do justice to all these affairs, and so the Commissionership of Pegu was divided into two equal charges, each containing four districts. One good result of this change is that the Judicial Commissioner is relieved of Pegu Sessions duties and is enabled to give his whole time to the work of hearing appeals and controlling the subordinate Courts. The increase of population and revenue and the extension of cultivation in the delta lands and along the railway line has rendered necessary the establishment of additional sub-divisional and township Courts, which are being opened as circumstances require.

Changes of officers.

11. Effort has been made to limit, as far as possible, transfers and changes of officers filling the higher administrative offices of Commissioner and Deputy Commissioner. Nevertheless ill-health, furloughs, and retirements cause some unavoidable changes. Apart from temporary transfers caused by short absences on privilege leave, two out of the three Commissionerships changed hands during the year 1880-81, owing to the return of Colonel Sladen from furlough in November and the departure of Colonel Browne on furlough in March. For similar unavoidable causes, there were changes in the Deputy Commissioners of Akyab, the Arakan Hill Tracts, Hanthawaddy, Prome, Thonegwa, and Tharrawaddy, that is to say, in six districts out of the nineteen which the province contains. The circumstance that all these changes should have been unavoidable shows how absolutely necessary it is to abstain from all changes and transfers save on clear grounds of public necessity.

Employment of Natives in higher offices.

12. Some advance has been made during the past year towards the more extended employment of Natives of Burma in higher offices. A Burman gentlman, Moung Ba One, who was partly educated in England and who had served as a subordinate Magistrate for some time, has been appointed by the Viceroy in Council to be a probationer for the Civil Service under the Statute of 1870. For the first time since Burma became a British province certain selected Burmese officers have, with the approval of the Judicial Commissioner, been invested with the full powers of a Magistate. Selected Burman Magistrates have also been placed in charge of sub-divisions, and as sub-divisional officers they are exercising a jurisdiction which had been reserved for European officers. So far, the experiment of employing Burmese officers in more responsible posts has not produced any harm to the public service, while it has operated as an encouragement to Burmese officials. Even if in some respects the administration of a sub-division by Burmese officers is not quite so efficient as it might be, still there is much national and political advantage in placing a gradually increasing number of selected Burmese officers in positions of power and responsibility. One obstacle to carrying out this policy is that the older Burmese public servants rarely possess the knowledge and adaptability required for taking an active part in administrative affairs; while few of the younger generation of officials who know English have yet acquired adequate experience or have sufficiently gained the confidence of their fellow-countrymen. As the requirements of British administration grow more and more complicated, it becomes very difficult for an officer who cannot read English to discharge duties

of higher responsibility than that of township officer. In course of time, no doubt, all our higher Burman officials will know English, which is being taught in schools to a rapidly increasing number of boys. Already a knowledge of English is made compulsory on candidates for the higher grades of the local bar. But, for the present, it is a decided drawback that so few of our senior Burman officers are acquainted with the English language. Without such knowledge, they must remain ignorant of many of our laws, and they can never really understand our administrative system and aims.

Salaries of Native Judges and Magistrates.

13. When increased powers and responsibilities were entrusted to Native officers, it became necessary to recommend some improvement in the status and salary of Native Magistrates and Judges. For some years past it had been matter of complaint that Native Magistrates in Burma were inadequately paid; that Burma was the most costly province in the empire for Europeans or Natives to live in; that Burmese Magistrates and Burman Judges, stationed in the interior and exercising wide powers, were not paid half so well as officers of the same calibre in other provinces where living is much cheaper; and that it was difficult for a Burman Magistrate and Judge to be honest, to maintain his position, and to bring up his family on the existing rates of pay. At the present time of writing, out of 121 Native Magistrates in Burma, 41 are receiving salaries of Rs. 100 a month or under, while only 22 are receiving more than Rs. 200 a month. In February 1881 proposals were submitted to the Government of India for gradually increasing the emoluments of this valuable class of public servants. The eventual extra expenditure caused by these proposals was estimated at Rs. 1,24,800, against which would be set off a saving in consequence of the gradual reduction in the number of junior European officers. Orders on these proposals have not yet been received. Until this matter is settled, we can hardly expect that the Native magistracy will everywhere cordially respond to the additional demands made on their zeal and industry, nor can we hope that the standard of probity, of education, of judicial fitness, and of administrative capacity will materially improve among the ranks of Native Magistrates and Judges.

Appointment of Honorary Magistrates.

14. In order to give the people a further interest in the public business of the country, selected persons, generally "Loogyees" (aldermen) have been appointed Honorary Magistrates for each of the municipal towns. These gentlemen sit in benches of two or three Magistrates, and they are to try the bulk of the petty bailable offences that occur in their towns. As yet these benches have not sat long enough to warrant an estimate of their work. But apparently respectable Burmans, like Natives of other parts of India, appreciate the dignity and position of an Honorary Magistrate. It remains to be seen whether they will permanently accept the labour of sitting regularly on the bench according to roster, and whether they will by their decisions give satisfaction to their fellow-countrymen. In past times the Burman Elders of towns and villages have habitually decided many of the social, matrimonial, and other disputes of their neighbourhoods. There seems no reason why the same class of men should not do good work as Honorary Magistrates.

15. Effort is being made to break through the long-observed custom, whereby European officers expect, and Burmese pay, respect after the ancient manner of the country, known as *shiko*. According to this custom the subordinate kneels before the superior with bowed head in attitude of worship. This no doubt was, and to a great extent still is, the Native custom. Even in Rangoon no Burman will address a Buddhist monk (ponegyee) in a monastery save in the attitude of *shiko* or worship. It is argued that the Burmese like the custom and would misunderstand any deviation therefrom; and it is the case that the Chief Commissioner on his journeys has occasionally found Burman officials of the old school who were unwilling to be debarred from showing the customary mark of respect to a high Government official. But such a feeling is rare among Burmese of the younger generation; and the observance of the *shiko* towards the European is repugnant to men who have learnt English or who have been to Europe or America. Already Burman Assessors in Sessions Courts; Burman Judges and Magistrates in their own Courts; schoolmasters in Government schools; members of Municipal Committees; and Loogyees (Aldermen) of the larger towns sit on chairs when transacting business in the presence of Europeans. The Government of India have decided that no British Resident at Mandalay shall henceforth be compelled to *shiko* before His Majesty the King of Ava. It seems unsuitable that we should maintain the observance of a custom so utterly foreign to English ideas among any class of Her Majesty's subjects. As a late Chief Commissioner (Mr. Rivers Thompson) said some years ago, "the sooner the practice is replaced by "a less obsequious and degrading form of recognition the better."

Shiko, or Burmese gesture of respect.

16. In consequence of the long land frontier to be watched, of the sparseness of the population, of the proneness of Burmans to excitement and violent crimes, and of the absence of any organised rural police, the constabulary in Burma is stronger in proportion to the population than in other parts of India. There are now in the province 7,371 regular police of all ranks, as compared with 5,886 in the year 1871. The ratio of the force to the population is one policeman to every 430 persons, whereas in India the rate is one policeman to every 1,267 souls. Owing to the high rate of wages, a constable costs nearly twice as much in Burma as he does in India. Even now the position of police constable is not very highly valued, for 29 per cent. of the whole force resigned during the year 1880, and out of 2,196 men who left the force only 12 had served for pension. In order to make the police force more popular, it has been decided to reduce the numbers, and with the savings so secured to raise the wages of the lowest grade of constable from Rs. 12 to Rs. 14 a month, and to put the salary of a 1st grade constable at Rs. 16 instead of Rs. 15. Arrangements are also being made for gradually providing all policemen with quarters near to the station-houses. At present ordinary Burman constables have to pay from eight annas to five rupees a month for hired houses. The reduction in numbers and the enhancement of wages has aleady been carried out in some districts, and will be extended further during the coming year. The provision of quarters for the police has been begun in two districts, and will be extended gradually as funds permit. At present the character of the police for efficiency and honesty is not everywhere so high as could be wished. But it is hoped that, by improving their position, by constantly teaching them their duties and keeping them up to their work, their character may be raised.

Police force.

Rural police.

17. During the past year a rural police cess of five per cent. on the land and certain other revenues has been levied for the first time. The money is being applied to the improvement and payment of the rural police. Formerly the chief man (Kyaydangyee) of a Burman village used to receive from Rs. 2 to Rs. 5 a year for discharging the duties of village policeman. As the duty and responsibility thrown upon him increased, it became more and more difficult to induce respectable villagers to accept the office. Now, under the Rural Police Act, the village police officer will receive from Rs. 29 to Rs. 125 a year, and as a consequence the foremost villagers are ready to undertake the office. The new system has already taken effect in some districts and will probably be introduced in all before the end of the current year. The village police officer, instead of being as in India the village servant or village drudge, will be a notable villager, and will, by virtue of his office, be recognised in small places as the chief man of the village. Over the village police officers are a set of superior rural policemen, who hold charge of circles. The rural police act in co-operation with, and in subordination to, the regular constabulary; but the members of the rural police will retain as far as possible their position as representative and influential villagers.

Crime.

18. The people of Burma, by reason of their excitability of character and their apparent disregard for the sanctity of human life, used to be very prone to crimes of violence. Such offences were judged leniently by the community; and it is said that young Burmans of respectable family would engage in a robbery or a cattle-lifting expedition just to prove their manhood. Even now murders and woundings are occasionally committed almost without any adequate motive.* At the same time it must be said that a Burman crowd is usually quiet and law-abiding. During the Rangoon boat-races this year, crowds of from 10,000 to 30,000 people were assembled for three days, and during the whole time only one offence was reported to the police as having occurred among the crowds of sightseers. The action of the police and of the magistracy appears to have had some effect in weaning the people from crimes of violence, in breaking up robber-gangs, and in ridding the country of bandit-leaders. During the past 18 months several gangs have been successfully hunted down by the police and broken up, and certain noted outlaws have been either captured or killed. A Burman dacoit-leader can rarely be surprised without his arms; and so, when the police run him down, blows or shots are usually exchanged. This year two outlaws were killed in this way. The decrease in the number of violent crimes during the past ten years may be thus shown :—

	1870.	1880.
Number of reported cases of murder	103	102
Ditto dacoity, assembling for dacoity, and belonging to a gang of dacoits	136	47
Ditto culpable homicide	18	37
Ditto robbery	168	129
Total	425	315

* Two of last year's cases may be instanced. A. and B. were neighbours in the same village. A. was painting his boat; B. did not like the smell of the operation and told A. to desist. A. went on painting his boat, and when he had done walked up towards his house, passing B., who cut him down with a chopper and killed him. In the other case a wife cooked the daily meal for her husband. He did not like the curry and in his displeasure cut his wife down, killing her. In neither case did it appear that there had been much previous ill-feeling between the two parties, or that the murdered person had given other offence to the murderer.

This decrease in violent crime has been gradual and has occurred during a period when the population has increased by about 40 per cent. Last year was distinguished by a serious outbreak of dacoity on the frontier, which was disturbed by rebels against the King of Ava. In a single border district, Thayetmyo, thirteen dacoities were committed, and in every case but one the offenders escaped across the frontier. The border police have been strengthened, better relations have been established with the Burman officials across the border, and this year (1881) matters have somewhat quieted down. The number of minor offences against property is not much larger than it was ten years ago, notwithstanding the increase in population and improved arrangements for reporting crime, thus :—

	1870.	1880.
Number of reported less serious cases of house-breaking, house-trespass, &c.	489	369
Number of reported cases of cattle-theft ...	1,358	670
Ditto ditto of ordinary theft and receiving stolen property	6,525	8,055
Total ...	8,372	9,084

The success of the police in detecting violent crime and prosecuting previous offenders to conviction is decidedly better than it was ten years ago ; but there is still much room for improvement, and in some districts last year the police failed grievously in this part of their duty. The comparison between the results of police action in the years 1870 and 1880 stands as follows :—

		Total number of reported offences.	Number of cases in which conviction was obtained.	Percentage of cases in which conviction was obtained to total reported offences.
Murders, dacoities, and other violent crimes	1870	425	169	39
	1880	315	213	68
Thefts, cattle-thefts, &c. ...	1870	8,372	4,160	49
	1880	9,084	4,826	53

The police arrangements for proving previous convictions and so procuring adequate punishment for habitual offenders are now fairly successful, and have resulted in the transportation or imprisonment for long terms of many enemies of society.

Civil litigation.

19. The Civil Courts of the first instance are almost everywhere, except in Rangoon and Moulmein, presided over by Burman Judges. Cases valued at Rs. 3,000 and upwards mostly come before European Judges. The amount of civil litigation has not increased in proportion to the population. The number of civil suits with occasional fluctuations is about the same as it was ten years ago : in the year 1870 the number of civil suits decided in British Burma was 31,804, and in the year 1880 the number was 31,026. There has been some small increase in the value of the property in litigation ; 80 per cent. of the cases are for sums under Rs. 100. Only 40 per cent. of all the cases are for money lent ; and this bears out the view stated elsewhere that the petty landholders are not as a rule much in debt. The prevailing rate of interest in such agricultural loans as come into Court ranges from 3 to 7 per cent. per mensem. Five per cent. per mensem, equal to 60 per cent. per annum, is an ordinary rate of interest in Burman villages. Forty-two per cent. of all the suits are contested ; and of the contested suits in 1880, 64 per cent. were decided in favour of the plaintiff in whole or in part. In only 34 per cent. of the decrees

passed was application made to the Court for execution. In most cases the loser can and does settle his judgment-creditor's claims out of Court. There are a great number of licensed pleaders in the country, from 3 to 15 being found at every little Court in the interior. The pleaders do not in petty cases assist either their clients or the Courts, and they add greatly to the cost of litigation. Civil justice is dispensed with fair promptitude, the average duration of contested cases being 15 days in the township Courts and 11 days in the Small Cause Courts of the interior.

Criminal justice.

20. The course of crime during the year has been noticed in the paragraph of police affairs. The Judges and the Magistrates have, so far as the judgment of the appellate Courts is a test of their work, dealt satisfactorily with the criminal cases coming before them. The percentage of persons convicted to persons placed on trial ranged from 69 per cent. in the Courts of District Magistrates to 61 per cent. before the subordinate magistracy. Criminal justice was promptly administered, for the average duration of trials in all magisterial Courts was 4·33 days; 6,246 persons were sentenced to imprisonment; 1,256 were punished with whipping; 20,248 were punished with fine; and 49 were sentenced to death. There was some slight increase in the number of persons sentenced to long terms of imprisonment, in consequence of the heavier sentences passed on habitual offenders, and on persons who committed grievous hurt. To this latter offence Burmans are much too prone. In 82 per cent. of the cases of whipping the offender received no other punishment, and so escaped the evils of prison life altogether. The average of fines was Rs. 17 on each individual fined. As this is equal to a full month's wages of a labouring man, it is considered too high an average. Benches of Honorary Magistrates have been appointed, and have begun to sit in every municipal town. It is hoped that before long they will be able to try all nuisance cases and offences against municipal byelaws within their jurisdictions. The Legislature has directed that offences against the Vaccination Act shall ordinarily be tried by Native Honorary Magistrates.

Condition of the Courts.

21. The total cost of the administration of civil and criminal justice in Burma during the year was Rs. 8,33,173; against which may be credited the Rs. 5,04,527 received as court fees. Though there is little complaint regarding the quality of the justice dispensed by Subordinate Magistrates and Judges, yet there is much room for improvement in their procedure, in the careful consideration which should always be shown for accused persons and defendants, and in reducing costs which, especially in petty civil suits, are inordinately high. The Judicial Commissioner has now been set free from Sessions work, and so is able to devote more time and attention to inspecting subordinate Courts, revising their proceedings, and correcting their shortcomings of practice or procedure. The attention of Sessions Judges also has been directed to the need for more detailed supervision. By dint of constant inspection and revision, and by raising the status and emoluments of the subordinate Magistrates and Judges, it is hoped gradually to improve the character of the lower Courts, before which the vast majority of suitors and accused have to come. At one time it was proposed that a High Court of three Judges should be constituted for British Burma, to discharge the duties of the Judicial Commisssioner, the Recorder, and certain other judicial

Proposal for a High Court.

officers. In order to meet a part of the cost of the new Court, it was proposed to abolish two Judges who now exercise original jurisdiction in Rangoon and Moulmein. Subsequently, when a new Commissioner and Sessions Judge was sanctioned for the Irrawaddy division, it was submitted that there had been no very notable increase in the quantity and importance of the judicial business of Burma; that the Judge of the Moulmein and the Second Judge of the Rangoon Court could not be abolished without serious inconvenience to important communities; that the Judicial Commissioner, the Recorder, and the five Sessions Judges could well dispose of the more important judicial business of the province for some time to come; that a duly equipped High Court would cost a good deal of money, and that available funds could be best spent in improving and strengthening the Courts of the first instance. The two views on the High Court question are now before the Government of India, with whom must rest the decision. The merchants and the Bar of Rangoon are decidedly in favour of establishing a High Court.

Jails.

22. There are two central jails, six district jails, and six lock-ups in Burma, containing accommodation for 5,408 prisoners. In the year 1880, the average daily jail population was 4,782 and 5,424 was the largest number in prison at any one time. £24,441 were spent on new jail buildings, on which much further expenditure is still required, in order to make all jails fully secure and healthy, and in order to permit of proper classification and segregation of prisoners during hours of labour, hours of rest, and hours of sleep. One thousand and twenty convicts were under daily instruction; out of 1,350 prisoners released, 712 were unable to read and write when they came into jail, but only 236 were unable to read and write when they went out of jail. Two prisoners escaped during the year, one of whom was re-captured. The prisoners were very healthy during the year, the death-rate being 23·4 per mille on the average daily number of prisoners. Seventy-four per cent. of the prisoners available for labour were engaged on manufactures, and earned in all a net profit of £13,029, equal to 39 per cent. on the total jail expenditure of the year. Jail buildings are now carried on exclusively by prison labour. By way of reducing the number of corporal punishments, orders were issued that flogging was not to be inflicted on prisoners for doing short tasks or for possessing prohibited articles. As yet jail officers are not agreed whether prison discipline has or has not suffered from these orders. It is now, as heretofore, very difficult to prevent tobacco and opium from being smuggled into the jails. Burman prisoners and their friends have so much money to spare that the subordinate jail officials are from time to time corrupted.

Sanitation and hospitals.

23. Outside municipal towns very little has yet been done for the sanitary improvement of the country. The people defy sanitary laws, yet they thrive and multiply in a wonderful way in spite of such defiance. A set of simple instructions about sanitation was distributed in the Burmese language to nearly every village; but the measure had no appreciable effect. The deaths from cholera were last year less than one per mille of the population. The deaths from small-pox were 1·73, as compared with ·73 per mille in the preceding year. Deaths from fever were returned at 8·86 per mille. There are 27 hospitals and dispensaries in the province, at which were treated last year 10,262 in-patients and 98,520 out-patients, being an increase of 7,145 over the preceding year. English surgery is much appreciated by the Burmans, but they do not value English medicines and Eng-

lish medical practice. There are numbers of indigenous practitioners in most towns, who make a fair income by their profession. Effort is being made to train Burmans and Karens to the profession of European medicine. When there is a small body of qualified Burman doctors, the usefulness and popularity of dispensaries may be expected to increase.

Vaccination.

24. The number of persons vaccinated during the year was 47,211, or about 12 per mille of the population, as compared with 54,320 in the previous year. This falling-off in a year when small-pox was prevalent was matter for regret. The proportion of successful cases was 77 per cent., and the average cost of each successful operation was 11½ pence. Part of the failure was due to a failure of lymph. Arrangements are being made for producing animal lymph at an establishment organised for that purpose at Thayetmyo. The staff of vaccinators has been increased in several districts, Natives of Burma being preferred for the work. Applications have been received from the Municipal Committees of Rangoon, Akyab, and Toungoo for the extension of the compulsory Vaccination Act to those towns. But there is a good deal of feeling against any such measure on the part of the Burman population among whom inoculation has been practised for generations. The Act will not be extended to any town until the vaccination staff has been strengthened and improved and the supply of lymph is assured. If the local feeling against the Act is really widespread in any town, it will probably be better to wait until non-compulsory vaccination has made more way. With elected municipal committees it ought to be easier to find out what are the real wishes of the townsfolk.

Land revenue settlement.

25. Up to the year 1879 the land revenue was assessed at a single rate per acre for whole villages or groups of villages, while the areas of holdings were roughly measured by rural revenue officers. In 1879 a cadastral survey of all the occupied lands was begun; and on results of that survey a new assessment of the land revenue for a term of 15 years is being framed. The cardinal differences between the old and the new system are that fields are now surveyed and their area ascertained with scientific accuracy; that different rates of land revenue, varying with the fertility of the soil and the nearness of markets, have been fixed for each village or tract; and that a careful record has been prepared of all rights in the land. Up to the present time parts of three districts, Hanthawaddy, Bassein, and Tharrawaddy, have been surveyed by three different survey parties. The total area surveyed is 1,924,146 acres, of which 505,727 acres are cultivated; and the cost of the cadastral survey, inclusive of maps, has been Rs. 7,81,240, or about 6½ annas per acre. The area for which the land revenue has been settled and records have been prepared up to date is 218,648 acres of cultivated land. The average area of each holding is 36 acres. The fiscal result of the new assessments is that lands which used to pay a land revenue of Rs. 4,04,587 will now pay a land revenue of Rs. 4,95,932 a year. The highest revenue rate is Rs. 3 an acre and the lowest is 12 annas per acre. The increase in revenue caused by these operations is 22 per cent.; of this increase the greater part is due to the more exact measurements furnished by the cadastral survey. The total area under cultivation as disclosed by the survey was 216,119 acres, as against 170,683 acres returned by the rural revenue officers in the preceding year.

Incidence of the new assessments.

26. The new assessments fall at an average rate of Rs. 2-4-0 per acre of cultivated land. The average gross value of the rice-yield in the tracts recently surveyed is about Rs. 21 per acre; and the estimated cost of producing the crop, inclusive of all charges for the cultivator and his family, comes to Rs. 16 an acre. Thus the Government revenue amounts to about one-ninth of the gross produce, and to less than one-half of the net produce after a very liberal allowance for all costs of cultivation. A large number of experiments were made in cutting, threshing, and measuring rice-crops in different parts of the settled tracts. The yield ranges apparently from 15 to 70 bushels of paddy (rice in husk) per acre; and the average produce of ordinary rice-lands was taken at something beyond 32 bushels, or about 20 Indian maunds of paddy to the acre. Comparatively little land is sub-let to rent-paying tenants: cultivators who have large holdings generally employ farm servants to work their lands. Only 673 rent-paying tenants were found, or about 11 per cent. of the whole number of holdings. In most cases these tenants pay the Government revenue direct to the revenue collectors, and pay to their landlords 10 per cent. of the gross produce over and above the land revenue. Reduced to a money value, the total rents paid by tenants average, according to the latest returns, about Rs. 5-9-0 per acre. When comparatively little land is let to tenants, it is difficult to be confident about the market rates of rent; but, so far as the ascertained rent rates go, they show that the new assessments of the land revenue are moderate. In the Bassein district the new assessments were paid without difficulty this year. In the Hanthawaddy district, where the increase of revenue was larger, the full assessments were not collected this year, because the notices of the enhanced revenue did not reach the ryots until some weeks after they had reaped and sold their crops, and because there had this year been a great fall in the price of rice.

Other burdens on the land.

27. Over and above the land revenue the cultivators have to pay a capitation-tax of Rs. 5 to Rs. 3 per head on each adult male, and also a local cess of 10 per cent. on the land revenue. One-half of this cess is spent in paying the rural police; and the rest is available, in fixed proportions, for local roads, local schools, and the local letter-post. There is one other impost, namely, the export duty on rice, which falls more or less on the land and the cultivators. Every bag of rice exported from Burma pays an export duty of three annas a maund, about six pence per cwt. As the export price of rice is regulated mainly by the demand in Europe or in other parts of Asia, and not by the cost of production in Burma, the export duty comes mainly out of the profits of the producer. The rice duty last year yielded about 43 lakhs of rupees, which, spread over 3,300,000 acres of rice-land, comes to Re. 1-5-0 per acre. If we add together the land revenue, the local cess, the capitation-tax on agricultural families, and the rice-duty, the average land-tax comes to about Rs. 3-14-0 on each acre of cultivated land. If this rate seems high compared to the incidence of the land-tax in India, it must be remembered that the Burman peasants have no landlords to satisfy, they pay no appreciable salt-tax, and they enjoy the advantage of excellent markets always ready to receive their surplus produce. A cultivator near the railway or a navigable river can take or send his rice to the nearest sea-port at any time of the year and he will be certain of getting the full market

price. The constant demand of the rice-mills and the stream of vessels seeking rice cargoes ensure for the Burmese landholders the full price their rice can command in the markets of the world. Among other reasons for deeming the land-tax to be moderate as compared with the means of the people may be mentioned the circumstance that fully half the gross agricultural produce of the country is surplus over and above the needs of the people and is exported to other countries; that every family in Burma on the average spends £12 a year on jewellery and imported luxuries; and that, notwithstanding a certain national habit of unpunctuality, the land revenue was collected from 199 landholders out of 200 without any coercive process whatever.

Remissions of revenue.

28. As the land revenue in Burma, both according to ancient custom and according to recent law, represented an aliquot part of the gross produce, it followed that the revenue should not be collected in case the crop failed, and that in case of partial failure only part of the revenue would be paid. It is not quite certain that this liberal rule was fully carried out, for during the years from 1868 to 1879 the average remissions of land revenue were only Rs. 94,380 a year, or 2 per cent. of the land revenue demand for the whole period. In 1879, when rules were passed under the Land and Revenue Act, the rule was somewhat modified; and it was left to the discretion of the revenue officers to grant reasonable remission in case of total or partial failure of crop. Suggestions were made that, as Burman cultivators enjoyed a large margin of profit in years of good harvest, they might, as do zemindars in India, pay the moderate Government revenue in full during years of partial failure. But, at the suggestion of the Government of India, the matter has been again considered; and it has been decided to return to the old practice, whereby cultivators in Burma may obtain partial remission of revenue in case of any serious partial failure of crop, and may obtain full remission in case of total failure.

Clearance lease rules.

29. Much inducement is held out to persons who will break up new lands. Grants of culturable land are made to applicants who can show that they are able to do justice to the land. Land so granted is exempted from revenue for periods varying from one to ten years, according to the character of the forest to be cleared and according to the character of the crops to be planted. The longest period of exemption is given in the case of lands to be planted as orchards which will not yield fruit for six to ten years. A further period of exemption may be granted in cases where the grantee has to carry out drainage, embankment, or irrigation works in order to bring the land under cultivation. A grantee of waste land becomes proprietor of his grant, subject to the payment of land revenue thereon, at the end of the period of exemption. The extensions of cultivation, which go on at the rate of about 100,000 acres a year, mostly take place in small lots ranging from 4 to 50 acres. Of recent years no large areas have been taken up by individuals for clearance. During the present year, however, one or two men of substance have applied for grants of considerable areas of waste on or near the new railway line to Toungoo; and the applications will probably be granted where such grants do not interfere with the claims of neighbouring villagers to extend their cultivation.

Fallows and grazing-grounds.

30. Under the new settlement, the old custom whereby a portion of every holding might be left fallow at a reduced revenue of two annas per acre has been retained. Hitherto the

area thus left fallow has rarely exceeded 2 or 3 per cent. per annum on the total cultivated land. Ordinarily the fallows are left, not in order that the land may recover fertility, but because the occupier, from loss of cattle or for other reasons, has been unable to cultivate. In some cases a cultivator, leaving his old holdings fallow, takes up another holding in some other village and employs his cattle and labourers on the new land, while he retains his rights in his old property. Whatever may be the cause for which cultivators leave their fields fallow, the land, the country, and the revenue benefit by the practice, so long as the available waste land is practicably inexhaustible. Grazing-grounds are being set apart and reserved from cultivation in every village as far as this is possible. Already in a few of the more thickly peopled tracts pasture-land is not available in sufficient quantity near to the cultivated lands; and, for the want of such grazing-grounds, the cattle suffer and die.

Supplementary survey.

31. The survey and settlement operations cost a great deal of money and they unavoidably cause a good deal of harassment to the people. They leave behind most complete records of the state of the land during the year of survey; and they are educating a large body of competent Burman surveyors. But cultivation extends, fields change hands, holdings are broken up, and changes go on year by year. If these alterations are not recorded as they occur, the detailed operations of the survey and settlement will again become necessary at the end of the 15 years for which the present settlement lasts. In order to obviate this necessity, arrangements have been carried out for annually surveying and recording all changes and extensions of cultivation by competent surveyors, who will work under the Thoogyees, or rural revenue officials. The cost of this staff is paid partly by the Thoogyees, who enjoy from 6 to 10 per cent. of the revenue as remuneration for verifying holdings and collecting the revenue, and partly by the Government. The supplementary survey agency has so far done its work satisfactorily; and, if perseveringly conducted, will keep the rural agricultural records accurate up to date, will safeguard the public revenue from newly cultivated lands, and will obviate the necessity for repetition of survey operations 15 years hence.

Rainfall and crops.

32. The rainy seasons of 1880 and 1881 were favourable and the rainfall was as usual bountiful. In 1880 the rainfall ranged from 215 inches in the Tavoy to 39 inches in the Thayetmyo district. In the latter year the extremes of rainfall have so far been respectively 205 inches in the Kyoukpyoo to 39 inches in the Prome district. The inundations of 1880 were higher and wider than usual; and the Irrawaddy floods rose to a point within a few inches of the flood of 1877, the highest inundation that has ever been recorded. The river embankments on the Irrawaddy and Nawoon rivers were breached at two places, and much harm was done by the water which rushed over the country. For a part of two days the floods stood a foot deep above the level of the rails near the Prome terminus; but, happily, little harm was done to the line. In 1880 the rain stopped for the most part soon after the middle of September. This was very good for the lowlying lands, which consequently yielded bumper crops. But on the higher lands and in a great part of Arakan the rice-crop was from 10 to 20 per cent. below the average. On the whole the rice-yield of 1880-81 must have been good, for the rice export-

ations of 1881, up to the present time of writing, have been larger than in any previous year. The price of rice in Burma is entirely ruled by the export trade. If there are droughts or short harvests in India, China, Siam, Java, or in any large part of Europe, the price of rice goes up at once. This year there was no famine in any part of the world, and heavy crops were expected in Europe and America. Consequently the price of rice in Rangoon ranged at 19 per cent. below last year's prices and 23 per cent. below the prices of 1879. The rainy season of 1881 has been very favourable. Though the rainfall in the Pegu province has been heavier than last year, the Irrawaddy floods have not reached within three feet of the 1880 inundations. Showers late in the season have secured fullness and weight of ear, and up to the present time of writing (November) the rice-crops promise well all over the province. The surplus for export will be very large; and, unless the short crops in Europe and America cause an unexpected demand, the price of rice is likely to rule low during the coming season.

Land revenue.

33. The land revenue receipts of 1880-81 were £656,891, or 8·96 per cent. higher than in the preceding year. This increase was due mainly to an extension of cultivation to the amount of 153,959 acres, and partly to an enhancement of rates. The remissions of revenue amounted to £6,083, and were smaller than usual. Notwithstanding a heavy fall in the price of rice, the revenue was collected without difficulty. Coercive processes for realisation of the revenue arrears were issued in the case of 3,532 landholders, or ·53 per cent. of the whole number.

Capitation-tax.

34. The capitation-tax is an old local impost, which, under Native rule, to some extent took the place of the land-tax. Under present rules every adult married man, over the greater part of the province, pays a capitation-tax of Rs. 5 a year, and every unmarried man Rs. 2-8-0 a year. Men over 60 years of age, paupers, and Government servants are exempted. In municipal towns another impost, in lieu of capitation-tax, is levied for municipal purposes. The yield of this tax has not increased proportionately to the population of late years, partly because of exemptions in municipal towns, and partly because additional care is taken not to assess men who are too old or too poor to pay. As many as 716,910 persons, or 19 per cent. of the total population, are assessed to the tax; £288,789 were collected, and £1,854 were remitted. The number of coercive processes for realisation of capitation-tax was 13,659, or 1·8 per cent. of the total number of assessments. In 44 cases the property of defaulters was attached and sold, while 32 recusants were sent to the civil jail for short periods.

Fishery revenue.

35. The fishery revenue of the past year amounted to £138,902, showing an increase of 16 per cent. upon the preceding year's receipts. Of this sum, the greater part was yielded by taxes on inland fishing, and only £7,181 by taxes on sea-fisheries and turtle banks. Of this latter sum, about £3,000 is paid for the lease of sandbanks or islands whereon turtle lay their eggs. The lessees are not allowed to take a single turtle, but collect the eggs, which are esteemed as a delicacy by Burmans and are to be bought in nearly every bazaar. The take of eggs is sometimes as high as 200,000 in a single week on one of the Bassein turtle banks. A close season of six weeks is allowed, during which no eggs can be collected, so as to allow of reproduction of turtles. The most lucrative inland fisheries are in

the shallow lakes and hollows, which are filled every year by the spill-waters of the Irrawaddy and other streams; these lakes dry up for the most part in the hot season and nearly all the fish therein are caught; fresh supplies of fish come in with the next year's inundations. The right to fish in these lakes is leased out by auction for a period of years. In other waters fees are exacted on every net, trap, or other implement, saving only rod and line, employed in fishing. Sea-fishermen who use boats pay an annual fee of Rs. 60 for each boat license. The census returns show that 20,355 families earn their livelihood solely by fishing. The demand* for fresh fish is very great, and fish of many kinds are for sale in every bazaar. But the bulk of the fish caught at the larger fisheries are dried in the sun, or else converted into a sort of fish-paste called *ngapee*, which is universally eaten all over Burma. The best *ngapee* is made from prawns and shrimps; but sharks, cat-fish, and most other fish can be used for *ngapee*. The value of the *ngapee* exported to Upper Burma in the year 1880-81 was £235,531, nearly all of which comes from the Thonegwa and Bassein districts. The value of the whole take of fish in Burma, including the fish sold fresh, the dried fish, and the *ngapee*, cannot be far short of one million sterling. Recent reports showed that, while the number of fishermen in and the yield of inland fisheries were increasing, the number of sea-fishermen and the yield of sea-fisheries were declining. Dr. Day, who reported on the fisheries of Burma in 1869, remarked on the unwisdom of leaving ungathered the rich harvest of fish with which the waters on the coast of Burma teem; and he observed that, while in other countries large sums were spent to foster and protect sea-fisheries, in Burma every sea-fisherman is taxed for license to exercise his calling. Careful enquiries are being made into the circumstances, the wants and causes of decrease of the sea-fisheries, in order that any practicable remedy may be applied. Until the matter has been investigated further, it would be premature to surrender the sea-fishery revenue. In one district it was found that most of the sea-fishermen were overwhelmed with debt by reason of the exorbitant interest, 70 and 120 per cent. per annum, they had to pay on money borrowed to prepare their nets and boats. An attempt has been made to aid the sea-fishermen in this district by making them small advances of public money at 6¼ per cent. interest on proper security. It is reported that this measure has given much impetus to the sea-fishery business, but, until the advances of the year are recovered at the end of the fishing season, the result of the experiment will be doubtful.

Excise revenue.

36. The net receipts under the head of excise revenue for the year 1880-81 were £247,012, or 17½ per cent., over the income of the preceding year. These receipts accrued under the heads of—

	£
Net revenue from opium	143,173
License fees on imported spirits and wines	31,190
Ditto and duty on central distillery spirits ...	36,267
Ditto on out-stills	5,995
Ditto on rice-beer and fermented juice of the toddy palm	31,281

Opium.

37. Opium made at Government factories in Bengal is sold by public officers to licensed vendors, who pay high prices for their licenses. An unknown but increasing quantity of opium is smug-

* So universal is the use of fish that prisoners in jail get fish three or four times a week, besides getting every day a small allowance of *ngapee*, or fish condiment, with their rations.

gled into British Burma from Mandalay* and from the coast of India. The quantity of opium sold from the public stores last year was 109,530lbs. Since the year 1868 there has been a great increase in the number of licensed opium shops and in the sales of Government opium. In that year the sales of Government opium were 31,274lbs. In some districts the sales have increased very rapidly; for instance, in Kyoukpyoo 1,440lbs. of Government opium were sold during the year 1868, while 6,865lbs. were sold in 1880-81. For some years past the respectable classes of the people have represented that by reason of the increased number of licensed shops a taste for opium was spreading among the people and was doing much harm. They held that an habitual opium-eater or opium-smoker was a useless if not a noxious member of society. A good many reports were written, a good deal of discussion took place, and the late Chief Commissioner advised that stringent measures should be taken to curtail the consumption of opium. Meanwhile the sales of Government opium grew larger, the opium revenue increased, and the use of the drug spread. No action was taken to restrict the consumption of opium or to meet the wishes of the people in the matter until the present year. In April 1881 forty licensed opium shops were closed, leaving 28 still open; and the price of Government opium was raised 30 per cent. It is proposed to close nine more opium shops from the 1st April next, and to restrict the issues of Government opium to the holders of some of the remaining shops. It is as yet too soon to say what will be the effect of these measures. Opium will be dearer and more difficult to get, and the incentive to illicit dealings in opium will be greater than ever. So far as the result of enquiries go, it would seem that a certain number of people have left off the use of opium, some few have migrated from places where shops have been closed, and the spread of opiumising among young men has been checked. It is said that respectable Burmans are glad that heavy restrictions have been placed on the spread of a baneful habit; while habitual smokers manage to get their opium somehow notwithstanding the closing of many shops. It is anticipated that the measures which are being taken will eventually cause a loss of £50,000 to £70,000 of provincial revenues, and may reduce the consumption of Government opium in Burma by nearly one-half. The experience of the jails, where habitual opium-eaters are compelled to do without their narcotic, shows that no evil results to the people need be anticipated from the sudden closing of opium shops. In the Kyoukpyoo district, where the evils of opium were most apparent, the number of shops was reduced this year from five to one; and next year no opium shop at all will be licensed in that district.

Evil effects of opium in Burma.

38. There can be no doubt but that all the respectable classes of the people felt strongly on the opium question. Christian missionaries and European officers, who go much among the people, shared this feeling. Indulgence in opium sent a certain number of

* The British administration of Burma has been blamed because it permits or promotes the consumption of opium, while the Native Government proscribes and punishes the use of the drug. It is true that in Upper Burma, as in China, opium is a prohibited luxury. But it is also true that opium can be got by those who want it in most towns of Upper Burma; and the drug is far cheaper there than in British Burma. A great deal of Yunnan (Chinese) opium is smuggled from Upper Burma into British territory to the great disadvantage of the British Burma revenue and people. Sometimes the smugglers are caught; for instance, in September last, 31½lbs. of Yunnan opium, made up to resemble opium balls from the Indian factory, were seized coming into Rangoon by river steamer. The Chinese who conduct the opium-smuggling business in Burma are peculiar for dark ways, which it is difficult to counteract.

people to the lunatic asylum and a larger number into jail. The name of opium-eater was a term of reproach throughout the country. It was stated that in some tracts young men and boys were taking to opium, and the use of the drug was spreading. Under these circumstances it was clearly right to comply with the wishes of the people and to restrict the consumption of opium. Decided measures have been taken to do this, and further measures will be taken. Perhaps such measures might properly have been taken before. But, however this may be, there is little real ground for the statements that the action or inaction of the British Government in this matter was ruining a whole nation, sapping the vitals of the people, checking the progress of population, and demoralising the Burman race. All this has been freely said by many people and in many shapes. Now, what are the facts? There have never been more than 68 opium shops in 87,000 square miles of country; no one could lawfully possess more than about one ounce of opium outside a licensed shop, and people who broke this law were punished wherever caught; the average retail price of opium was raised to about Rs. 40 a pound, so that an habitual consumer, who takes about one-fifth of an ounce a day, must spend £16 a year to satisfy his craving. The total sales of Government opium last year, when sales were highest, would suffice to satisfy 24,340 habitual consumers, or 3·2 per cent. of the adult male population. The truth probably is that very few men can afford the full allowance of one-fifth of an ounce (half-a-tolah) of opium per diem; careful examination of all the prisoners in jail during September last showed that out of 4,698 prisoners 587 were addicted to opium, and that 108 prisoners in all showed signs of having suffered in physique from the indulgence. For the rest, the statistics offered in the present report show that during the last ten years the population has increased forty per cent.; that the public revenue, the exports and the imports have more than doubled during the same period; that the people are remarkably healthy and prolific; and that petty thefts have decreased in proportion to the population, while crimes of violence are now little more than half as many as they were ten years ago. These phenomena certainly do not betoken national decay, ruin, and demoralization. The recent measures were proposed by the present Chief Commissioner and were sanctioned by the present Government of India, because they were demanded by the voice of the people, and because they were deemed to be right. But the facts of the case do not justify the exaggerated statements regarding the actual results of the administration of the opium revenue in British Burma.

Excise on spirits.

39. Large quantities of foreign wines and spirits imported into Burma pay the usual customs duty. The excise revenue is over and above this duty, and is levied in the shape of fees paid by licensed vendors. These licenses are for the most part put up to auction, as thereby a maximum of revenue is raised with a minimum of consumption. There was a decrease of 30,415 gallons on the importation of foreign spirits. The total number of retail licenses to sell foreign liquors was 121. There are three licensed distilleries in the province,—one at Rangoon, one at Moulmein, and one at Toungoo,—and 237 shops were licensed for the retail of the liquor. The spirits issued from these distilleries are not everywhere appreciated. Moreover, they cannot be carried in good condition and at moderate cost into remote tracts, where means of communication are scanty, the people are poor, and

the climate may require the use of some stimulants. Accordingly 27 outstills were licensed in the year 1880-81 and 39 in the current year; and 1,065 shops have been licensed for the sale of rice-beer and toddy (fermented juice of the palm tree). The people in country districts seem to be taking more to fermented and comparatively harmless drinks, and to be drinking less spirits than before. Now that much restriction is placed on the use of opium, it is necessary not to deny the people the use of wholesome liquor. In forest tracts Karens and other hill tribes often make liquor professedly as libations for their gods without troubling or being troubled by the revenue officials. The total number of arrests for breach of the excise laws was 1,629; 1,302 persons were convicted and 247 were sent to prison. The more important of these cases were connected with illicit dealings in opium.

Customs revenue.

40. The customs revenue of 1880-81 was £595,656, or £41,002 above the receipts of the preceding year. Of this total the—

	£
export duty on rice yielded	429,084
import duties on cotton piece-goods, yarns, and twist ...	29,198
import duties on silk	20,934
import duties on wines, spirits, and beer	53,633

The duty on rice is levied at three annas per maund, irrespective of the value or quality of the article. It falls therefore more lightly on cleaned white rice than on cargo-rice, which consists of one part paddy to four parts rice. £44,912 were remitted on dutiable goods consigned to Upper Burma, under the commercial treaty which subsists between the British Government and the King of Ava. The only change in the customs duties was the remission of the export duty on tin.

Stamp revenue.

41. The stamp revenue has increased greatly since 1871; but for the last two years or so it has been nearly stationary. The decrease in civil litigation partly accounts for this. The absence of general indebtedness among the people explains to some extent the comparatively limited demand for deed stamps. Possibly the measures taken during the past year to increase the number of and to enhance the discount allowed to stamp-vendors, and the opening of new registration offices, will lead to a more general use of stamped documents. So far as can be ascertained, there is no cause for suspecting systematic evasion of the stamp laws. The number of prosecutions for breach of the Stamp law was four during the year 1880-81.

Salt-tax.

42. The tax on salt is very much lighter in Burma than in other parts of the Empire. The duty is three annas per maund, or about 25 per cent. *ad valorem*, on salt consumed in British territory; and it is only one per cent. *ad valorem* on salt consigned to Upper Burma or China. In India the salt-tax is about 500 per cent. *ad valorem*. Formerly a good deal of salt was made on the coasts of Burma and at the brine wells in the kingdom of Ava. But European salt has been coming more and more into general use. Last year the amount of salt locally manufactured was 8,562 tons, yielding an excise duty of £4,365; and the imported salt was 56,434 tons, yielding a duty of £19,339. Of the imported salt, 20,294 tons were carried by the Irrawaddy flotilla steamers into Upper Burma and to Bamo, on the confines of China. The retail price of salt in the markets of British Burma averages about

30 seers per rupee, or 30lbs. for a shilling. Among a people who consume fish and condiments made from fish very largely cheap salt is one of the chief necessaries of life.

Forests of Burma.

43. At least 50,000 square miles of hill, valley, and plain in British Burma are covered with forests and woods of one kind or another. These forests yield ample supplies of timber, bamboos, and other products to the people of Burma. But to the world outside Burma the forests are chiefly known from the teak timber and the cutch (a dye and tannin obtained by boiling chipped wood of the *acacia catechu*) which they produce. During the last five years the yield of teak timber from Burma has averaged 227,000 tons. Of this quantity, 135,000 tons, worth about £470,000, was exported from Burma to other parts of the world. During the past year the price of teak timber has risen 50 per cent., and so far there has been no decrease in the demand. On the average of the past five years the teak supply of Burma has been yielded, one-fifth by forests in British Burma, and four-fifths by foreign forests situate on the upper waters of the Salween, Sittang, and Irrawaddy rivers, all of which have their mouths in British Burma. It is feared that in process of time the trans-frontier forests, in which there is much waste and no attempt at conservancy, will be worked out; and the chief problem before our Forest Department is so to improve and manage the forests of British Burma that they may be able eventually to supply the demand of the world for teak. There seems little chance that the demand for teak will abate. That timber combines in a remarkable way many useful qualities; its employment for a variety of purposes in Europe and other countries is steadily extending; and it has held its own against the many excellent woods of America, Australia, and South Africa. Improvements in water communication may open fresh sources of teak supply in the upper valleys of the Siam and Cambodia rivers. But the teak-growing area of the world is very limited; and Burma must be able to supply 300,000 tons of teak annually in the future as she has done in the past.

Forest reserves.

44. The first step towards forest conservancy in Burma was to reserve from the axes of jungle tribes* the best teak-producing forests of the country. Already 2,849 square miles of teak-producing forests have been selected and demarcated as reserves; private rights therein have been investigated and bought out; and these forest areas will be gradually improved, surveyed, and brought into working order. Eventually the forest reserves of Burma will probably reach an area of 4,000 square miles, out of which at least 2,500 square miles will, within the next forty years, yield annually an average of about 10 cubic feet to the acre, or 128 tons per square mile. At this rate the yield of the reserves ought to reach 320,000 tons of teak per annum. Meantime, until the reserves have all been marked off and surveyed,

*NOTE.—The Karen and other jungle tribes often prefer a teak forest for the site of their toungyas or mountain gardens. It may be well to explain here what an ordinary toungya-cutter's proceedings are. He cuts down the forest on three to five acres this year, burns timber and brushwood when dry, sows his rice in the ashes, and reaps it in the cold season. Next spring he will go on to another plot of forest and treat that in the same way. Meanwhile bamboos and underwood grow up on the plot he has abandoned. For a period of seven or fourteen years he takes up new plots of forests, and at the end of that period he may return to his or some of his neighbour's old clearings and begin the process over again; or he may, if the spirit moves him, go off to another valley and cut toungyas there, returning after 20 or 25 years to his old ground. It is not only the axe of the Karen that destroys the teak forests. The fires they kindle at the season when everything is driest spread far and wide and kill the trees and saplings for many square miles round a single Karen hamlet.

and until working plans have been prepared, very little teak will be cut inside the reserves; and we shall have to depend on the supply of teak from beyond the frontier and on the forests outside the reserves. This year the supply from British forests was only 22,000 tons; but it is hoped that by degrees this yield may, without injury to the forests, be raised to 60,000 tons a year.

Teak plantations.

45. The natural reproduction of teak in forests that are protected from fire and from the axe has, during the past ten or twelve years, gone on much more satisfactorily than had been expected. Still it may hereafter turn out to be inexpedient to trust entirely to the natural growth of young teak for the supply of future years; and therefore a small area is regularly planted with teak every year. At first the plantations were made after European fashions. But the progress was slow and the outlay was large, being from Rs. 60 to Rs. 90 for each acre planted. During the last few years teak plantations have been extended by paying the hill tribes to plant teak seed in their hill gardens (toungyas), which they till for one year only. The teak comes up well after the rice is reaped. The plantation requires weeding for one or two years. These toungya plantations have succeeded very well so far; and they cost from Rs. 8 to Rs. 14 per acre planted. At present we have 7,131 acres of teak plantations; 1,072 acres were planted out last year; and our programme is to plant out regularly 1,200 acres a year at a cost of about Rs. 20,000. If this plan is carried out, the plantations ought to begin yielding mature teak about 80 years hence; and 120,000 acres of plantation should yield at least 1,000 tons of teak a year. It has still to be seen how far mature teak will come to perfection in plantations. The natural habit of the teak tree is to grow in company with other trees. The yearly outturn from the plantations as at present designed will be extremely small compared with the world's demand for teak. But, if the toungya plantations succeed, it will be comparatively easy to extend them hereafter.

Other timbers.

46. Though teak is the most valuable produce of the Burma forests, still there are many other kinds of durable and valuable timber. The people build their houses mainly of such other timbers. The iron-wood (pyingado) and other trees yield large and durable house-posts and piles for timber bridges. The pyinma, thitka, karaway, padouk, and many other trees furnish good scantlings and planks. As teak gets dearer, these woods are coming into more general use. During the present year nearly all the sleepers for the Sittang Valley Railway have been supplied of pyingado and other woods besides teak. The forests officials are girdling and seasoning, year by year, a large stock of these other timbers for the local market and for the use of the Public Works Department. In this way it is hoped that more teak will be set free for the export trade. During the past five years as much as 92,000 tons of teak have been used annually in Burma alone. Efforts are being renewed to introduce some of the more handsome Burma woods into the furniture trade of Europe.

Forest revenue and expenditure.

47. Forest conservancy cannot be prosecuted on a large scale without considerable outlay. Last year the forest establishment cost £71,000. But the forest revenue was £151,000, so that a surplus was left of £80,000. Of the total revenue, £32,000 was yielded

by duty on teak imported from foreign territory into Moulmein; the rest of the revenue was yielded by State forests in British Burma. There seems no reason why the surplus forest revenue should not gradually increase. Meanwhile an immensely valuable public property is being regulated, husbanded, and improved to the best advantage. Sixty or seventy years hence, if teak continues to be in request, the forest reserves of British Burma ought to yield an annual revenue of £500,000 a year. Long before that time comes, the forests establishments will have to be very largely increased. In order to effect that increase as economically as possible, effort is now being made to send Burmans and Karens to the Dehra forest school, where they can be trained in the principles and practice of forestry. As yet the effort has not been very successful, owing to the great local demand for educated young men. But during the next ten years a body of trained Burman and Karen foresters will have to be trained, if the province is to work up to the programme laid down by Mr. Brandis, who was the father of, and is still the valued adviser on, all forest conservancy operations in Burma.

Municipalities.

48. There are seven municipalities in Burma, four at the seaport towns and three at Henzada, Prome, and Toungoo. During the past year proposals were made to establish municipalities at four other towns, but the townsfolk in three of these places opposed any such measure on the ground that municipal organization would involve additional taxation and unpleasant restrictions on personal freedom. There can be no doubt but that these expressions of opinion were put forward in the utmost good faith by the townspeople, and it was deemed undesirable to force upon the people a system which they did not desire. Accordingly the number of municipalities remains the same as it was in the year 1874. The governing bodies of the municipalities consist of members appointed by the local Government; there are 105 such members in all, of whom 47 are Government officials and 58 non-officials. It is proposed that for the future two-thirds of the members of every municipal committee shall be elected by the ratepayers. In Rangoon the ratepayers apparently approve the proposal, and perhaps elected members will feel more independent of Government influence and more bound to represent the views of their constituents.

Powers of municipal committees.

49. The present Municipal Act contains a clause empowering the Chief Commissioner to "suspend, cancel, or limit any of the acts, proceedings, or rules of a municipal committee." This power is said to prevent members of municipal committees from speaking their minds; and it will probably be modified when the law comes under revision. As a matter of fact no interference has during the past year been exercised under that section. Occasionally further explanation is asked before sanction is given to a particular proposal for expenditure. But in any scheme for retrenchment, or any opposition to expenditure, the municipal committees have had their way entirely. For instance, it had been decided by the late Chief Commissioner, with the concurrence of the Government of India, that an extra tax, yielding Rs. 60,000, should be imposed in the town of Moulmein to meet the cost of water-supply and conservancy, and the collection of the new tax had actually begun. Large numbers of the townsfolk petitioned against the new impost; on reference being made to the Municipal Committee, a majority of that body declared that the town was notoriously healthy, that the water-supply was good and abundant, and that they would rather be without new drains and new conservancy than have a new tax.

So the new tax was taken off. Afterwards, when local sanitary authorities deemed the need for a new water-supply very pressing, the local Government offered to pay part of the cost if the Municipality would undertake such a scheme. But the Committee decided that the town could do without a water-supply, and the matter was dropped. The town of Prome had for years suffered from pestilence, caused apparently by flood-waters which had no outlet. The engineers devised a scheme for draining the town; the work was approved by the local Government and by the President of the Committee, and was begun pending the decision of the Committee. A majority of the Municipal Committee voted against the drainage scheme on the double ground that they preferred an alternative plan for embanking the river and that the drainage scheme knocked down too many houses. On this vote being made known the works were stopped, plans were made for carrying out the Committee's views by embanking the river and altering the drainage lines so as to spare houses, and the altered scheme, as accepted by the Committee, is being carried out. There is certainly no wish to overrule municipal committees, but there is every desire that committees should vote and act impartially for their fellow-townsmen and themselves.

Municipal income.

50. The total income of the seven municipal committees during the year 1880-81 was £142,012. Out of this total, only £81,097 were the proceeds of taxation, the two largest items of which are £32,755 from rates on houses and lands and £29,110 from licenses on trades; grants-in-aid from provincial funds amount to £17,587; and the rents of markets, &c., yield £23,841. Municipalities in Burma enjoy the revenue paid for licenses to sell spirits and liquor within their limits. The municipal market is a regular Burman institution, which is most popular with buyers and sellers, and the rents from market stalls everywhere materially help to fill the municipal treasury without any pressure apparent to the people themselves. Only two municipalities, Rangoon and Akyab, have contracted debts; and in the case of Akyab the loan will be paid off in two or three years.

Municipal expenditure.

51. The main items of municipal expenditure during the year were—

	£
Cost of office and collecting taxes	12,209
Conservancy	16,972
Town police	15,812
Street lighting	3,844
Street and road repairs	21,054
Drainage works	6,669
Water-supply	6,399
Sanitation and hospitals	6,008
Education	2,938
Buildings, gardens, and other public works	18,790

The towns for the most part made their money go as far as it could; but they have an immense deal left to do. Two towns only are lighted at night, namely, Rangoon and Toungoo. In Rangoon and Bassein only has any attempt been made at securing a water-supply. In Bassein and Rangoon only has anything been really done in the way of conservancy; and even there the work is barely begun. The expenditure on education is very small, especially in the larger towns. There is room for improvement in the details of municipal administration

as serious irregularities or defalcations came to light during the year in the municipal finance of Rangoon, Bassein, Akyab, Prome, and Moulmein.

Local funds.

52. The local funds, apart from municipal and port funds, consist of—

	£
The district cess funds with a total income of	56,008
The town funds	23,585
The district funds	22,966
Land sale and rent funds	14,899
Certain other petty and special funds	4,742
Total ...	122,200

The "cess funds" are separate for each district and derive their income from a rate of ten per cent. levied from landholders in addition to the land revenue. These funds are assigned under the law one-half to rural police, one-fifth to rural schools, one-fifth to rural postal communications, and three-fifths to district roads and waterways: any surplus over those objects may be spent on hospitals and sanitation. During the year 1880-81 only £30,237 out of these funds was spent, and a large unspent balance of £68,001 remained at the end of the year. There is an immense deal to be done with this money; organization and arrangements for its due expenditure are being rapidly matured. The "town funds" accrue from excise licenses, bazaar rents, ferry tolls, petty criminal fines, and occasionally house-tax, in towns which have not yet been constituted municipalities. The funds are spent on town police, roads, schools, hospitals, conservancy, and miscellaneous improvements. On these objects £23,782 were spent during the year. Some few towns have still a large unexpended balance from the income of previous years. There is a "district fund" for each district, apart from the cess fund which is regulated by enactment. The district funds draw their income from the local taxes or rents of towns which have as yet no separate fund, from bazaar rents, from cattle-pound fees, and from ferry tolls. They are expended mainly on the same objects to which the cess funds are devoted, and there is little reason why they should not be amalgamated under the new enactment which will be required for the establishment of district committees. The "land sale fund" receives the proceeds of the sale and rent of Government lands in the municipal towns of Rangoon, Moulmein, and Akyab. The yield of these funds has been granted by the Government of India, for the time, to the municipalities of these places.

Administration of local funds.

53. Hitherto the cess, district, and town funds have been managed by the district officers, assisted by the advice of Educational and Hospital Committees and of town elders (loogyees). It is questionable whether these funds have been everywhere utilised to the fullest advantage. Plans are now being matured for placing the administration of these funds entirely in the hands of district Committees, who will have Sub-Committees or branch Committees in each sub-division or township, and in every town where local taxes are realised. At the outset there will in some districts be difficulty and delay in getting Committees to work freely and independently. Smooth working on such bodies is not always the most important end to be desired. Healthy friction and self-assertion on the part of independent

Native members is wanted. Without something of the kind the real wishes of the people regarding the proper expenditure of local and municipal funds cannot be ascertained.

Public works expenditure.

54. The total public works expenditure of the year 1880-81 was £277,853. Of this sum, £38,051, besides the cost of establishments, were spent on barracks, forts, and other military works. Inside the three forts at Rangoon, Thayetmyo, and Toungoo barracks and other military buildings are generally of masonry; for the rest barracks are built of wood. New wooden barracks for European troops are nearly completed at Rangoon. They are airy, healthy, and comfortable. A good deal has to be spent on the river defences of Rangoon, on the frontier forts, and on the gradual renewal of barracks and hospitals at Toungoo and Thayetmyo. The expenditure on civil buildings amounted to £52,900; most of this was spent on the building of jails, court-houses, schools, and police-stations. A great deal of money will have to be spent during the next few years before the public buildings of Burma are equal to the requirements of the public service.

Roads.

55. Of the material wants of Burma, the greatest is the need for improved means of communication. The rivers and tidal creeks, on which ply steamers and some 65,000 boats of capacity ranging from one ton to 150 tons, in some measure supply the needs of the delta and the riverine tracts; and the railways do something for the plains they traverse. For four months of the year carts can traverse the rice plains by cross-country tracks, and so carry surplus produce to the river or the rail. During the height of the rainy season many streams and channels, which are dry at ordinary times, are navigable for Burman boats; the great rivers are then in flood and hold up the water in the drainage channels of the country. But, notwithstanding these facilities, there are great areas and thousands of villages which, for at least half the year, are shut off from trade by reason of the lack of roads and bridges. Without a network of roads connecting the remoter towns and villages with each other and with the main lines of communication by water and rail, without such facilities, the railways, steamers, and rivers can benefit only limited tracts, and the extension of cultivation and of prosperity must sooner or later be arrested. Colonel Trevor, who was for several years Chief Engineer in Burma, left on record the following advice:—

"The roads we want are essentially village and district roads, not following the shortest practicable line from point to point, but embracing by reasonable deviations from their direct course, or by loops and branches, all villages and cultivated or culturable tracts which it is possible to connect with the great highways of rail, river, or sea on which they are, by force of circumstances, dependent for their communication with the outer world. Such roads should be raised above ordinary flood-level, need not be more than 16 feet wide over all, with eight feet of metalling in the centre, and bridges of the same width in the clear as the metalling. It is almost needless to say that they should, when possible, be fully bridged in a substantial though simple and unpretending style. Roads of this class will probably cost on the average about £700 per mile, and their construction to meet all the requirements of the province is likely to afford ample occupation for a numerous staff of engineers and subordinates for many years to come."

At present we have 227 miles of metalled and bridged road, capable of carrying traffic in all weathers, and 472 miles more are in different stages of progress

towards completion. On these roads £88,034 were spent last year, and the allotment for the current year is £213,830. These sums are exclusive of the cost of establishments and tools. If the grant for roads can be maintained at not less than £140,000 for new roads and £40,000 for the maintenance of old roads, we ought soon to have 150 miles of new road completed annually. At present our road expenditure is confined mainly to the districts through which the railways pass and to tracts near the seaports. These are the places where the need is greatest, and it seems better to finish what roads are in hand. There are at least eight districts, out of the nineteen into which British Burma is divided, which do not possess a mile of metalled and bridged road outside the head-quarter town. Expenditure on roads is now being gradually extended to all these districts. On Burma roads the bridges are almost everywhere of timber and are comparatively cheap. But in many districts no metal is available except broken brick; and in a country of heavy rainfall a road of this material requires constant care and repairs if the traffic is heavy.

Village highways.

56. In past times Burma villagers have done a great deal for themselves in the way of erecting rest-houses, of making embanked and paved roads in and near the larger villages, and in building wooden bridges. By such works, executed for the public good, a good Buddhist lays up for himself credit hereafter. But such works seem to have been less frequent of late years. Possibly the levy of the road cess may have had something to do with the cessation of these meritorious undertakings. Effort is now being made to get village and town elders to spend small allotments of the road fund to the best advantage on local roads, paths, and bridges, just as they used to spend in former years the subscriptions of pious Buddhists and the labour of public-spirited villagers. As yet the efforts made in this direction have borne partial fruit in one or two districts only. But we may hope for further success hereafter, wherever the public spirit and the co-operative bent of the Burmese are judiciously worked by local officers and are fostered by timely grants of road cess money for works which the people themselves may undertake.

Waterways.

57. An important artificial waterway, connecting the Irrawaddy river system with the Sittang river, is nearly finished. This canal is 39 miles long; it has locks at both ends, one into the Sittang river and one into the Pegu river. The tide on the Sittang river rises four feet higher than the tide on the Pegu river. In both rivers, especially in the Sittang river, the tidal wave or bore is strong and destructive. A very great deal of surface drainage, about 10,000 cubic feet of water per second, has to be passed across the canal during the rainy season. The escapes for dealing with this drainage are only partially done; there has been serious failure of masonry on the works executed; and so the canal is not complete. Before it is finished it will have cost nearly £300,000. It has been constructed from current revenue and not from loan money. It cannot for many years yield sufficient to pay interest on its prime cost. But it already serves a boat traffic of about 76,000 tons a year, besides timber rafts; and it has contributed to cause great extensions of cultivation in a tract which was previously water-logged and without means of communication and in which there was great dearth of fresh water during the dry season. Another canal has now been undertaken from Rangoon through the rich township

of Twantay into the Thonegwa district. Smaller sums are being allotted for the clearing of grass, trees, and brushwood from other navigable channels. Proposals framed many years ago for canalising the channels between the Sittang and the Salween deltas have been again considered; and it has been decided to spend only a small sum for the present on these waterways. Where the clearance of channels is judiciously done, a small outlay goes a great way; and people themselves are often ready to take a hand in such work. A partial clearing of the Pyuntasa creek in the Sittang valley, effected last summer, has already lowered the ruling level of the inundation waters behind Pyuntasa by two feet, although the Sittang floods of the present season have been unusually high. In favourable places a little clearing of the matted roots and brushwood which arrest the flow of water often gives rise to a scour which may open a good waterway in a few weeks. The present Chief Engineer has passed most of his service on canals, so that we may expect that the improvement of waterways, which are the highways of Burmese trade, will receive much attention during the next few years. One of the arrangements for minor improvement to waterways has been the organization of two or more rock-blasting gangs, skilled in the use of dynamite, who are to move from river to river, blasting the rocks and reefs which at present block many navigable channels. The first gang broke ground in the Kyouktan creek last spring, and began again when the rivers fell in November.

Embankments.

58. In consequence of the bountiful rainfall enjoyed by British Burma, there is no need for irrigation works. But for many years past expenditure has been incurred in embanking the right bank of the Irrawaddy and the left bank of the Nawoon in order to protect cultivated lands from periodical floods. Up to the beginning of last year 167 miles of the main rivers had been embanked on one side; £290,242 had been spent on these works; and during the year £12,899 were expended. The embankments have undoubtedly protected and secured the cultivation of large areas, and have thus rendered secure a considerable revenue. Behind the embankments cultivation has spread to lands which were previously uncultivable. But, on the other hand, the embankments burst more or less frequently, causing for the time great damage; while the spill of the Irrawaddy on the unembanked side is certainly—whether in consequence of the embankments or not—heavier and more destructive than it had previously been. Mr. R. Gordon, the accomplished Engineer who has been in charge of the embankments almost from the outset, submitted during the year a full and exhaustive report upon the Irrawaddy river, its regimen, and the embankments. He proposed to extend the embankments to both sides of the Irrawaddy river, to carry them further down and to treat separately most of the larger affluents. The cost of all these works would have been considerable; their affect could not be confidently predicted. Mr. Gordon's report was fully considered, and it was decided by the Government of India that the embankments of the Irrawaddy should not be extended for the present; that the affluents and effluents of the main river should be re-opened and made navigable; and that the embankments as now existing should be repaired and maintained. In consequence of this decision the efforts of the embankment engineers have been mainly directed to repairing the heavy breaches that occurred in 1880 and to investigating the minor waterways which the embankments have wholly or partially closed.

Mr. Gordon's observations on the Irrawaddy.

59. Though Mr. Gordon's proposals for extending the embankments have not been accepted, still his report and the patient observations he has made during a series of years regarding the phenomena of the Irrawaddy river have been of the greatest use, and their value has been acknowledged by hydraulic engineers in many parts of Europe and America. Among other matters he has established, by more than 1,000 separate series of observations, that the velocity of the current is greater below than on the surface; that at Myanoung, near the head of the delta, the highest ascertained discharge was (August 1877) 2,040,123 cubic feet per second, while the lowest measured discharge was (March 1873) 78,966 cubic feet, and the lowest computed discharge was (March 1877) 46,146 cubic feet per second; that it would be useless to attempt to train or control the action of this enormous body of water; that the parts of silt in 10,000 parts of Irrawaddy water ranged from 0·89 on the surface in the month of May to 30·8 near the bottom in the great flood of August 1877, while the mean ranges from 2·2 to 10·4 parts of silt in 10,000 parts of water. Mr. Gordon maintains that the embanking of a deltaic river does not and cannot eventually raise the low-water bed of its trunk; he postulates that, if the operation of the erosive force of a river be confined to a restricted channel, then the river will hollow out its channel instead of raising the bed; and he cites the opinions of writers on the Po, the Garonne, the Danube, and the Mississippi in support of his position. So far as the history of recent floods goes, it certainly gives colour to the general belief that the inundations of the Irrawaddy and Nawoon are higher now-a-days, and therefore more destructive, than they used to be. The flood of 1877 was higher than any previous recorded or known flood; and the flood of 1880 reached almost to the 1877 level. The people of the country most firmly believe that the increased height of the Irrawaddy floods and the wider devastations caused thereby during the past few years have been due to the embankments.

Engineering staff.

60. The large extension of public works which has been undertaken could not be carried out with the small engineering establishments attached to the province. In the nine years of comparatively restricted public works outlay, the establishment charges had averaged only 18 per cent. on the net outlay on works, and considerable sums remained unspent from the yearly grants. In a country like Burma, where distances are great and travelling is tedious; where hills and swamps and forests have to be encountered by engineers; where the working season is, by reason of the prolonged rains, very short; where varying problems and new difficulties constantly arise; in such a country it is bad economy to stint the engineering and supervising establishment. Undue economy in this direction is sure to result in costly mistakes and in bad work. Colonel Trevor advised that the lowest safe proportion the cost of establishments should bear to the total public works' grant was 20 per cent. As the grant was to be permanently raised, it became necessary to increase the engineering establishments; and accordingly a Superintending Engineer, five Executive Engineers, seven Assistant Engineers, besides subordinates, were added to the engineering staff of the province. As extra work and extra zeal are now being required of all engineers, and as Public Works officers dislike coming to, or staying in, Burma on account of its expensiveness and other drawbacks, the concession of special Burma allowances has now been restored

to all engineers and subordinates below a certain grade; those allowances had been sanctioned in 1869 to make up in part for the extra costliness of life in Burma, but they had been withdrawn during recent years of financial distress.

Burman engineers and artificers.

61. As yet we have not been successful in training Burman engineers; there are a very few Burmans in the subordinate ranks of the Public Works Department, and there are some trustworthy and successful Burman station-masters and telegraph clerks on the railway. But no educated Burmans have learnt, or attempted to learn, engineering under British rule, though under Native rule the Burmans constructed many beautiful pagodas, bridges, and other buildings of masonry and of timber. During the past year two selected Burmans have received scholarships and have been sent to the Calcutta Engineering College, where they will go through a regular engineering course. It is intended to send two such scholars every year until a regular supply of Burman recruits is secured for the Public Works Department. For the training of Burman and Karen apprentices in iron-work and machinery, scholarships have been established at the railway workshops near Rangoon. As yet Burman lads, though they have tried the work, have not stuck to it; and we have no Burman fitters, stokers, or drivers on the line. Further perseverance may, however, secure better results. As most public buildings outside Rangoon are made of wood, there is a great deal of employment for carpenters. At present the best and most successful carpenters are Chinamen; they are steady and industrious, they make good contractors for wood-work, and they can be trusted to work according to specification and plan much more carefully than can Burmans. Carpenters of Burman and Karen race have in past times executed excellent wood-work in pagodas and monasteries. In outlying towns and villages capital wooden houses, belonging to well-to-do cultivators, are to be seen with close-fitting joints and ornamental, well-designed staircases. The American Baptist Missionaries have built, through the agency of Karen and Burman carpenters, fine school-houses and churches in many parts of the country. These buildings have been constructed for the most part of other timber than teak; and in point of economy, if not of elegance, they contrast very favourably with public buildings consisting entirely of costly teak timber and erected by Chinese contractors. There seems no reason why Burman or Karen carpenters should not in course of time execute public buildings as carefully and as rapidly as Chinese carpenters now do.

Railway to Prome.

62. British Burma possesses one metre-gauge railway, 163 miles long, from Rangoon to Prome. It was opened for traffic in the spring of 1878; and it has cost, with additions up to March 1881, £1,234,112, or £7,572 per mile. Burmans, who are by nature traders and travellers, have taken very readily to the railway, which made during the year ending on the 30th June 1881 net earnings of £60,696, or 4·597 per cent. on the capital outlay. The gross earnings of the last financial year were £142,884, of which £75,771 were from passengers and £65,325 from goods. By reason of a deficiency of rolling-stock, the railway has not been able to do all that was required of it. Five new engines of a powerful class, able to draw 50 loaded vehicles, and material for 300 wagons, have been ordered out from England and will, it is hoped, be on the line by March next. A good deal has still to be done in the way of substituting iron for wooden girders, in improving the fencing, and in

extending station buildings; so that there will be some further addition to the capital account. Rest-houses of the Burman type are being erected from provincial funds outside each of the principal stations. The gross receipts of the railway have now increased by £20,000 a year for the last two years. The working charges of the railway for the year 1880-81 were 60·89 per cent. of the gross earnings. Sanction has been received to the extension of the railway 46 miles onwards to Allanmyo, the frontier cantonment. But, as the extension will hardly pay, it must be undertaken from the current provincial revenues, which are at present fully spent elsewhere.

Railway to Toungoo.

63. During the year sanction was received to the construction of a railway in the Sittang valley from Rangoon to Toungoo, an important frontier cantonment and an entrepôt for trade with the Shan States. Toungoo has hitherto been ten days' journey from Rangoon, as the Sittang was not navigable for large river steamers. The new line will be 163 miles long. It will pass through a more thinly-peopled country than the Prome line; but the land is fertile and will rapidly be taken up for cultivation, just as was the case with lands on the Prome line. The survey and alignment of the line has been finished; £300,000 will be spent before March next, and it is expected that the line will open to Pegu, the first large town 48 miles out of Rangoon, by March 1883; that it will open to Pyuntaza, opposite the head-quarters of the Shwaygyin district, before the end of 1883; and that the line will open through to Toungoo by June 1884. The estimated cost of the line is £1,169,828 in all. By people who have travelled from Toungoo to Mandalay it is believed that, when the British Burma railway system is extended to Mandalay, the Sittang valley route will be found shorter and cheaper than the Irrawaddy valley. Interest on the capital cost of the Toungoo line will be a charge on the provincial funds of Burma until the railway earnings cover the interest. The experience of the Prome line certainly warrants an expectation that the Toungoo line will pay within a reasonably short time.

Irrawaddy Flotilla steamers.

64. Almost more important to the trade of the province than the railways are the steamers of the Irrawaddy Flotilla Company. This Company began their business in the year 1868 by taking over two or three old Government steamers and flats. They now possess 29 steamers and 44 flats; they send two or more steamers with flats to Mandalay twice a week; they send a steamer once a fortnight, or oftener if need be, to Bamo, within four days' journey of the south-west frontier of China; and they ply on the creeks and rivers of the Pegu delta. During the past year they have, aided by Government subsidies, established two new lines of steamers on different parts of the Irrawaddy. These lines rarely pay at the outset, but the Company are enterprising in accepting a temporary loss and nursing the traffic. The Company's officials are distinguished for the consideration they show to Native passengers in small as well as in great matters. They receive considerable subsidies, aggregating in all about £12,000 a year, from the local Government, and they are reputed to make large earnings. The service they do to the province is immense; they carry between British and Independent Burma goods to the value of about 3¼ millions sterling, besides about 50,000 passengers; and this is over and above the large traffic they do in purely British waters. Though they have practically a monopoly of the Irrawaddy traffic their charges are not

excessive; for instance they carry salt cargoes from Rangoon to Bamo, a distance of over 750 miles up stream, for Rs. 11 per ton. Three or four steamers belonging to the King of Ava ply on the river, but get little freight, although the trade to Mandalay is entirely in the hands of Chinese and Moslem merchants. It is much to the credit of the Flotilla management that, though there is no British Resident at Mandalay, their steamers have plied securely and regularly as before.

Other steamers on rivers.

65. The only other steamers plying on the rivers in Burma are small craft belonging to Chinese and Burmese merchants. They run from Rangoon rather irregularly to Yandoon, an important entrepôt on the Irrawaddy, and to Pegu. As yet it has not been possible to get the Pegu steamer to undertake to carry mails for a subsidy. A steam-launch service was established on the Sittang to carry the mails to Toungoo; but this arrangement is possible only during the rainy season and will cease when the railway opens. Negotiations are in progress with a Moulmein firm, who are willing, for a sufficient subsidy, to run small steamers on the Salween and Domdamee rivers to important trading towns outside Moulmein. It is hoped that these lines will be at work before the end of next year; but some delay must occur, as special steamers have to be procured from Europe.

Public Instruction.

66. Before the British came to Burma, every town or village had its *kyoung* or monastery, where the boys of the place were taught to read and write, and were instructed in religion by *poneyyees* or monks. According to the figures of the recent census there are now 4,279 monasteries and 6,498 monks besides probationers and acolytes in British Burma. These monks do not officiate at pagodas or discharge the duties of parish priests; their function is to set an example by their pious and self-denying lives, and to instruct the young. In former times, boys often left the monastic schools without really learning to read or write; and even those who did learn found it very difficult to keep up their knowledge where there were no printed books and very little literature of any kind. Still the presence of a body of monks who observed their vows, who cultivated learning, and who were held in high honour, had its effect on the Burmese nation. Of the three provinces which compose British Burma, Arakan and Tenasserim came under British rule 55 years ago and Pegu 28 years ago; yet the annual report for 1870-71 shows that in that year only £7,289 of public money was spent on education, and that ten years ago the Department of Public Instruction had cognizance of only seven Government schools and 74 private schools, containing 2,418 pupils in all. In that year "a beginning was made in the inspection of monastic schools" in three districts; and it was said that the report of the inspecting officer from one district was "not without hope" that the monks would permit regular inspection of their schools and would gradually adopt authorised school-books. In the same report it is mentioned that Government schools at Rangoon, Akyab, and Moulmein had been raised to the rank of high schools and would train scholars for the Calcutta University examination. The circumstance that so little was done for, or spent on, education in Burma up to the year 1871, explains why higher education is still so backward in these provinces as compared with provinces like the Punjab, Nagpore, Oudh, or Berar, which came under British rule more recently.

Higher education.

67. The examinations of the Calcutta University test the success of scholars at higher schools in Burma. As yet no school in Burma, except the Rangoon High School, has suc-

ceeded in teaching scholars up to the standard of the University Entrance examination; and no candidate from Burma has presented himself for the First Arts or any higher examination at the University. Seventeen students in all, of whom nine were Burmans, have passed the Entrance examination. One reason for this want of success probably is, that as yet we have few Burman or Karen teachers who can teach English, mathematics, and history. The masters of middle and higher schools are chiefly Englishmen or Natives of India, who cannot make Burmese the vehicle of instruction; and so the boys do not really grasp what they are taught. The difficulty will be gradually overcome as the number of qualified Burman and Karen teachers increases. A knowledge of English is now commonly required from candidates for the higher ranks of the public service, from pleaders, and from men who go into trade; and, as a consequence, the desire to learn English and to qualify for the University examination is becoming more general. In a few years' time the six high schools of Burma may be expected to be more successful at the University examinations than they now are.

Middle schools.

68. Out of 36 middle schools 23 are managed by missionary bodies. The largest and most successful of these is the Catholic Brothers' school at Rangoon, with 500 scholars belonging to eight different nationalities. St. John's school at Rangoon, and some of the Karen schools under the Baptist Missionaries, are useful and promising institutions. Last year, for the first time, all Government and aided middle schools had to submit their best students to a general examination. Only 49 boys in all succeeded in passing the middle standard from 36 schools. It is hoped that the results of these annual examinations will greatly assist schoolmasters in finding out weak points in their schools, and in bringing both schools and scholars up to a higher standard. The total number of children at all the higher and middle schools of the province is 1,124 boys and 131 girls. Special grants, beyond the ordinary scope of the rules, for the furtherance of the education of European and Eurasian childern and orphans were made to the Diocesan school, to St John's Convent, the Moulmein Town school, and to the Methodist congregation at Rangoon. A similar special grant has been sanctioned for extending accommodation for orphans at St. John's college.

Primary schools.

69. The progress made by primary schools is satisfactory. Besides 70 Government and Missionary primary schools, 3,151 indigenous primary schools were last year inspected and examined. Of these 2,678 were monastic and 473 were lay schools. At these schools were 76,857 boys and 4,975 girls. No girls are admitted into monastic schools; but at lay schools they constitute 30 per cent. of the scholars. 8·9 per cent. of the children examined earned grants of public money under the rules for payment by results; the proportion of grant-winners being 2·4 per cent. at monastic and 10 per cent. at lay schools. The monks appear to welcome gladly the visits of Government Inspectors, and they buy school-books and maps so far as they can afford to do so. The aid given by Government to indigenous primary schools consists not only in examining the schools and making results-grants, but in providing and paying certificated assistant masters to teach in the more successful schools. The managers of monastic and lay schools are usually very anxious to secure the services of these certificated teachers. During the past year much additional money has been granted for the furtherance of indigenous

primary education. Two new normal schools have been established for educating certificated teachers; additional Deputy Inspectors have been appointed for the oversight of primary schools; the scale of results-grants has been made more liberal; and the pay of certificated assistant masters has been improved.

Educational measures of the year.

70. The grant of public money for education has been raised during the past year from £29,900 to £39,500. New grant-in-aid rules have been issued whereby each aided school will receive grants according to the number of its scholars who may pass in the several prescribed subjects at the annual examination, and will also be able to earn head-money for each scholar in regular attendance. In order to encourage girls' schools, the rules allow grants for girls at 1½ times the rates for boys. The Text-book Committee have brought out a number of Burmese school-books, have selected others for publication, and have offered rewards for approved works on other subjects. In order to broaden the basis on which the local Government and the Department of Public Instruction found their educational measures, an Educational Syndicate has been appointed, on which sit representatives of all the races and bodies interested or engaged in education. To this Syndicate is committed the conduct of all the provincial examinations, and their advice is gratefully accepted on any educational matter to which they may direct their attention. Already the Syndicate have given grounds for the belief that their labours will be of much benefit to Burma. The scheme of scholarships is as yet incomplete, and only £570 was spent last year in this way. It is hoped that by next year a scheme of scholarships leading from primary schools up to the University will be established, and that eventually 7 or 8 per cent. of the available educational grant will be spent on scholarships. At present, attempts at technical education are confined to the establishment of two medical and two engineering scholarships a year tenable at the Calcutta colleges; to the establishment of paid apprenticeships at the railway workshops, to which as yet Burman or Karen lads have not been attracted; to the veterinary school at Rangoon, which has already sent out certificated pupils who have been most useful in contending against the spread of cattle disease. The survey classes, which are now working in connection with the cadastral survey parties, and are fitting yearly increasing numbers of Burmans and Karens for work as field-surveyors.

According to last year's returns, the total number of children at schools of which the Educational Department took cognizance was 85,930, or 24 per mille on the total population of the province.

The Press.

71. There are 15 printing presses in British Burma, of which two belong to Missionary bodies, 11 to private persons, and two to Government. The total number of books and pamphlets issued during the year was 124, of which almost all were either religious or educational. Four English and four Burmese newspapers are published regularly. The tone of the Burmese journals is moderate; they are by no means hostile to the British Government or its officers; they from time to time publish notices of official misdoings or abuses and of local wants, thus doing good service to the community. Some of these journals side with the King of Upper Burma in differences between His Majesty and the British Government; but the writers in no way foment disloyalty among British subjects. There are no public libraries

in the province, save one or two among European communities. Formerly the only books in the country were the Buddhist MSS. written on plam-leaf and preserved in monasteries. To these MSS. none but the monks ordinarily had access; and so the laity, though they had learnt to read in boyhood, often lost such knowledge by reason of disuse. Missionaries, who have been many years in Burma, say that in the more advanced parts of the country a change is gradually coming over the people in this respect, and that the large number of Burman and Karen books, pamphlets, and tracts issued during the last few years are helping the people to keep up their power of reading. When the rural post is in better working order, it may be desirable to consider whether registered vernacular newspapers should not be carried by post free of charge in consideration of the good they do in helping the rural population to retain the power and habit of reading.

Post Office and Telegraphs.

72. During the last three years there has been a steady increase in the number of letters and messages passing through the post offices and along the telegraph wires of Burma, thus:—

	Number of letters and parcels carried by the post office.	Postal revenue from sale of stamps.	Number of telegrams despatched and received.	Total telegraph revenue.
1878-79 ...	1,794,000	£ 13,844	173,572	£ 22,402
1879-80 ...	2,215,000	„ 14,513	190,852	„ 21,646
1880-81 ...	2,326,000	„ 14,740	211,458	„ 21,498

Nearly all the letters belong to the large seaport towns, and barely one letter in two hundred passes through the district post. Hardly any Burmans were employed in the post office, and up to the present year few postal facilities were provided for towns and villages in the interior. Attention is now being given to the matter; Rs. 60,000 a year have been allotted from the rural cess for the next few years for the establishment of post offices, pillar-boxes, postal lines, and village postmen at all the larger towns in the interior of the country. The new postal organization has already been carried out in two districts and is being extended gradually to other districts. Effort is being made to induce respectable Burman villagers to undertake the duties of rural postmaster in addition to their ordinary business. When the rural post has been spread and letters begin to be delivered throughout the country, the people will perhaps trust the post office, and it may be expected that Burman correspondence will greatly increase, for the Burmans distinctly travel more and trade more than other Indian races. The telegraph wire is being extended from Moulmein to Tavoy and across the hills to Bangkok, the capital of Siam. Suburban telegraph offices are being opened and short lines erected at the seaport towns, and telephone communication has been provided between merchants' offices and rice-mills in Rangoon.

Marine.

73. For the greater part of the year one or more of Her Majesty's ships-of-war were on the Burman station and lay at Rangoon. In August 1881 H. M. S. *Ready*, drawing nine feet of water and carrying four 200-pounder guns, went up the Irrawaddy to the British Frontier beyond Thayetmyo. No man-of-war had ever been nearly so far up the river before. She made the voyage without any accident or difficulty. It seems tolerably certain that she could go up to Mandalay safely during the

months of August and September. The several ports and approaches to harbours were kept in good order. A re-survey was made of part of the Rangoon river. The Rangoon Pilots, partly in consequence of indiscipline, piloted a considerable number of vessels on shore, and grave complaint was made by merchants and ship-captains. The Pilots have now been placed under the control of the Port Commissioners, the bonds of discipline have been tightened, and improvement has taken place. Periodical visits to and reliefs of light-houses have been duly carried out by the Government steamer *Enterprize*, the health of lighthouse-keepers has improved, and there was only one complaint of bad lights during the year. The light-dues now yield an annual surplus of £10,000; and arrangements are being made for placing a new light-vessel on the Krishna shoal, for placing a small light on Reef island at the mouth of the Tavoy river, and for erecting a light-house on the rocks known as "The Terribles" off the Arakan coast.

Port Trust.

74. The Port Commission of Rangoon has now been constituted for nearly two years. The members consist of merchants, engineers, and officials. They have an income of £54,164 a year; and they spent last year £30,710 on port improvements. They have provided a port fire-engine, are constructing a new wharf, executing other improvements on the foreshore, and systematising the port police and port affairs generally. They have subscribed to the city hospital, so as to relieve the shipping from heavy hospital charges. They have incurred no debt, and they have not enhanced the port dues or other charges. The pilot-dues, port-dues, and other port charges for a large steamer entering and clearing from Rangoon are now about 13¼ annas (1*s.* 7⅜*d.*) per ton of register for the double voyage. The port funds of Moulmein, Bassein, and Akyab are managed by the local Port Officer under the direction of the divisional Commissioner. The total income of the three funds is now £26,144 a year. The funds pay their way, meet the cost of progressive port improvements, and are not in debt.

Finances.

75. The total imperial and provincial revenues of British Burma were for the years—

	£
1870-71	1,232,066
1879-80	2,270,539
1880-81	2,360,000*

The total revenues have thus nearly doubled within the past ten years; and the increase of the year 1880-81 over the previous year was 4· per cent. Some account of the increase has been given in describing the several heads of revenue. The total revenues, exclusive of loans, of all the local, municipal, town, and port funds, were for the same years—

	£
1870-71	106,091
1879-80	298,881
1880-81	346,686

This great increase is due to the fact that the Rangoon Port Trust, as well as sundry municipalities and town funds, have been constituted during the past ten

* Owing to the revenue establishments having been much occupied with the census work, an unusually small proportion of the land revenue was collected during the months of February and March. But in order not to vitiate the comparison, the land revenue of the year 1880-81 is taken at 62 lakhs of rupees, which is the proportion of the arrear and current demand that would under ordinary circumstances have been collected within the year.

years; to the fact that the land revenue on which the road, school, postal, and police cesses are computed, has increased greatly during this period; and also to the fact that the cesses on the land revenue have been raised from 5 to 10 per cent. These local and municipal funds are spent locally for the benefit of the towns, districts, and ports where they are collected; but they constitute nevertheless a distinct addition to the burdens on the people. The incidence of these revenues on a population of 3,736,771 is—

	Rs.
Total imperial, provincial, with all local revenues	7·2 per head.
Imperial and provincial revenues	6·3 ,,
Local, municipal, town, and port revenues	·9 ,,

If the imperial and provincial revenues of all India were as heavy as they are in Burma, the general revenues of the Empire would be about 135 millions sterling.

The total expenditure of British Burma for the year 1880-81 was—

Civil expenditure, including railways and public works ...	1,213,000
Military expenditure (about)	380,000

Thus the province of British Burma, after paying interest on local railway capital, and after paying for a garrison maintained at war strength on account of political circumstances, yielded for the general purposes of the Empire a surplus of £767,000 in the year 1880-81. The present civil expenditure of Burma compares with the previous civil expenditure thus:—

	£
Civil expenditure, excluding railways, of 1870-71	640,000
Ditto, ditto, 1879-80	1,095,000
Ditto, ditto, 1880-81	1,127,000

It will be seen that the provincial expenditure has increased nearly in the same ratio as the provincial income during the last ten years; ordinary administrative charges have increased gradually with the growing needs and increasing revenues; but the only considerable new head of charge during the last ten years has been for the survey and settlement of the land. These operations cost about £55,000 a year; they will probably continue for eight years; but they will result in an addition to the land revenue of not less than £140,000 a year.

Provincial finances.

76. In March 1879 the Government of India decided that, under the circumstances of Burma, the provincialization of the finances might be more completely developed here than was possible in Upper India. Accordingly full powers were delegated to the local Government in respect of all expenditure under all heads except the Army, the Post Office, and the Telegraph Department. In order to meet the provincial expenditure, the Imperial Government made over to the local Government one-sixth of all receipts from land revenue, capitation-tax, forests, export duties, and salt duties, together with all the revenues and receipts under other heads. There had in past times been complaints that Burma was starved, and did not get enough money to meet her growing needs or to foster her rapidly advancing prosperity. Even the provincial arrangements of 1879 were not very joyfully received. But the Government of India believed that the revenues, wholly or partially surrendered for provincial uses, would rapidly increase, and would furnish means for accomplishing the many administrative and material improvements

which were so much needed. These anticipations have been fulfilled. In the first year of the new arrangements the provincial and local balances rose from £25,500 to £143,600; and the subsequent growth of the provincial revenues will be seen from the subjoined figures, thus:—

						£
Actual provincial revenues of 1878-79			...	...	...	918,436
Ditto	do.	1879-80	...	...	...	1,004,860
Ditto	do.	1880-81	...	...	...	1,030,985
Estimated	do.	1881-82	...	...	...	1,053,800

The loss of revenue, estimated at £50,000 a year, caused by the measures taken to restrict the consumption of opium, falls entirely on the provincial revenues, and has retarded the otherwise rapid increase.

While heavy war expenditure was going on, the local Government was obliged to restrict its expenditure. The provincial balances therefore increased; but when peace was restored, the greater part of these balances remained at the credit of the province. During the past and the present year there has been increased expenditure on public works, on education, on police, on judicial and revenue establishments, and on other administrative improvements. As an example of the effect of the liberal financial terms granted to the province in 1879 it may be mentioned that the total public works grant for the current year is £560,000, of which about £270,000 (including the cost of establishments) are assigned for the improvement of communications. The average public works grant for the previous five years was £243,000, and the average assignment for communications (including the cost of establishments) was £91,000.

Total trade of Burma.

77. The external trade of British Burma continues to increase rapidly, thus:—

In the year.	Value of sea-borne trade.		Value of land frontier trade.		Total value.		
	Export.	Import.	Export.	Import.	Export.	Import.	Grand Total.
	£	£	£	£	£	£	£
1870-71 ...	3,895,000	3,903,000	1,326,000	1,139,000	5,221,000	5,042,000	10,263,000
1879-80 ...	8,904,000	8,191,000	1,880,000	2,301,000	10,784,000	10,492,000	21,276,000
1880-81 ...	9,475,000	8,802,000	1,958,000	2,086,000	11,433,000	10,789,000	22,222,000

The total trade of Burma has increased 117 per cent. during the last ten years. The advance, moreover, has gone on steadily year by year; and the increase during the past year over the year next preceding was 4·8 per cent. Out of this trade, during the past year, £3,530,000 consisted of treasure, of which the imports exceeded the exports by £780,000. In the preceding year the imports and exports of treasure amounted to £3,836,000; in the year 1870-71 they amounted to £2,324,000.

Sea-borne trade.

78. The chief items of export trade are rice, timber, and cutch (a resinous gum used for dyeing and other purposes in Europe and America). It is the rice produce and the rice exports that have made and that maintain the prosperity of Burma. In 1870-71 the total rice exports by sea were 440,000 tons; in 1879-80 they were 810,000 tons; and last year they were 885,338 tons; 6,924 tons went to Upper Burma; so that the province sent away 892,262 tons of rice during the year 1880-81. This last

figure exceeds the rice exports of any previous year; but it will, so far as can be foreseen, be exceeded during the current year. The total declared value of the rice exports during the past year was £5,655,000. The value of teak timber exported was £1,020,000, or 34 per cent. in excess of last year. The cutch export was valued at £468,000, or 40 per cent. above the previous year's exports both in quantity and value.

In all the principal articles of import, except wines and spirits, there was last year a great increase. The value of imported cotton yarn, cotton goods, silk, silken goods, woollen goods, and apparel has gone up from £2,490,000 in 1879-80 to £3,330,000 in the past year; competition among importers has been close; profits have been smaller; and there has been some increase in the bonded stocks. But, on the whole, the greatly increased supply of goods has passed readily into consumption, and importations are continuing. There has been a large increase in the imports of iron and of machinery for mills. The great increase in the import of tobacco, spices, sugar, and earth-oil is not entirely satisfactory, because these articles can, with improved appliances and increased population, be very well produced in Burma. The demand for American earth-oil in every town and village of British Burma, and in many parts of Upper Burma, is very large.

Numbers of the shipping.

79. The sea-borne trade of the year was carried in the following vessels, which are returned as "entered" and "cleared" at the several ports of Burma during the year, namely,—

Steamers	... 2,438,	with registered tonnage of	1,668,325 tons.
Sailing vessels	... 3,020,	ditto	862,831 „
Total	... 5,458		2,531,156

The trade, especially the rice traffic to Europe, is employing steamers more and more every year. The Indian craft and junks, which used to do much of the trade along the coast to India on the one side and to the Straits Settlements on the other, are decreasing before the competition of the coasting steamers, of which there are three or four lines, besides the mail steamers of the British India Steamship Company. The service done to the province by these steamers is very great. During the present year two extra services of coasting steamers have, by the help of Government subsidies, been established in the districts of Kyoukpyoo, Sandoway, Tavoy, and Mergui. Of these districts, Sandoway has for more than a year been entirely cut off from all steamer communication; it will now get a fortnightly mail steamer. The other districts used to have a fortnightly steamer, but will now have a weekly steamer inwards and outwards.

Trade with Upper Burma and China.

80. The principal route for trade across the land frontier of British Burma is by the Irrawaddy, and nearly all the traffic on this route is carried by steamers of the Irrawaddy Flotilla. A considerable quantity of teak timber from Upper Burma and the semi-independent States between Siam and Ava enters British territory by the Sittang and Salween rivers. Very little other merchandise enters or leaves British Burma by either of these rivers, which are hardly navigable beyond the frontier. A certain amount of trade is carried on pack-bullocks or on elephants, or on men's backs, across the borders of the Thayetmyo, Kyoukpyoo, Tavoy, Amherst, and Toungoo districts; and by two or three of these routes cattle and ponies are imported. The total export and import traffic, which

is registered as crossing the land frontier of British Burma, was valued at £4,045,000 last year, as compared with £4,182,000 in the preceding year. Of the year's trade, more than three-fourths (£3,099,000) was registered on the Irrawaddy route. Some part of this traffic comes from, or is destined for, Western China, and is carried by the Flotilla Company's steamers to Bamo, 750 miles up stream from Rangoon and within four days' journey of the China frontier. There has been, on the whole, steady and rapid progress in the Mandalay trade, as the traffic with and through Upper Burma is called. The only article in which trade has decreased is rice. Formerly Upper Burma could not feed itself, and as recently as the years 1875-78 we sent more than 70,000 tons of rice a year into Upper Burma. Since 1878 the demand has decreased, and last year Upper Burma took from us only 6,924 tons of rice. At the same time the kingdom of Ava has sent away for export increasing quantities of cutch, hides, jade-stone, earth-oil, and wheat; and has consumed rapidly increasing quantities of British goods. The value of the piece-goods, twist, salt, crockery, and miscellaneous goods paying one per cent. duty on transit to Upper Burma has been during the last three years :—

	£
1878-79	588,375
1879-80	739,063
1880-81	907,269

Some part of the increased production and trade of Upper Burma may be due to recent good harvests. But it is right to remember that this great improvement has occurred mainly during the reign of King Theebaw, who succeeded to the throne in 1878.

Trade monopolies.

81. Since the beginning of the year 1881 the Government of Upper Burma have granted monopolies for certain of the export staples, namely, cotton, sugar, cutch, and pickled tea. There has been much complaint among European, Chinese, Moslem, and Burman traders concerning these monopolies. Though no monopolies have yet been granted for any imported articles, such as piece-goods, salt, or ngapee, still traders from British Burma, who carry goods to Mandalay, find that they have to pay high prices to the monopolists for the produce they wish to bring back with them. The trade with Mandalay is entirely in the hands of Chinese, Mahomedan, and Burman merchants. With the exception of one English firm, who have taken the cutch monopoly, and two or three timber contractors, European merchants have no direct dealing with Mandalay, though they sell to, and buy from, the Chinese and Native firms which deal with Mandalay. The monopolies, except in the case of pickled tea and sugar, did not take effect until April 1881; so the trade returns for last year do not show the effects of the monopolies. In sugar there was a small decrease and in pickled tea there was a considerable increase. The returns of the Mandalay export and import trade for the months of the current year, April to September, show a total value of £1,241,131 as compared with £1,382,706 for the corresponding months of the preceding year; for the months April to October of the present year the totals of the seaborne export and import trade are £8,845,912, as compared with £8,776,354. The monopolies have thus already begun to effect trade. The creation of monopolies in any articles except timber, earth-oil, and precious stones is contrary to the treaty subsisting between the British Government and the King of Ava. Under

the orders of the Government of India, representation has been made to the Court of Mandalay concerning the baneful effect of such monopolies upon the two countries; and it has been submitted that the monopolies infringe the treaty. It has been decided not to act on suggestions that the British Government should take retaliatory commercial measures against the kingdom of Ava.

Reputed dullness of trade.

82. Last season there was a good deal of complaint in Rangoon that trade was dull, and that merchants were making losses. The causes of the dullness were said to be the unwise commercial policy of the Government of Ava and the revised land revenue settlements, which unduly curtailed the purchasing power of the people. The foregoing paragraphs will have shown that the import and export trade of British Burma was last year much larger than it ever was before, and the returns of the Custom-house up to October 1881 show that this progressive increase in both branches of trade continues. Last year, also, the kingdom of Upper Burma took more British goods and exported more produce than it ever did before, with the sole exception of rice, which Ava used to draw from British territory, but which it now produces for itself. The purchasing power of the cultivators in British Burma is no doubt smaller in 1881 than it was in 1880. But the curtailment of their surplus profits was not due to the revised settlements of the land revenue. The new settlement added only £5,800 in all to the land revenue of the year 1880-81, and this sum bears an insignificant proportion to the whole land revenue of £650,000, or to the total annual value of the gross produce of the land, which is estimated at £7,300,000. The real cause of the decrease in the peasant's profits is the fall in the price of rice, the great agricultural staple of the country. The average prices of rice have been in 1881 nearly 20 per cent. below what they were in 1880. This fall means a diminution of about £1,450,000 in the surplus earnings of the cultivators. It is another proof of the marvellous vitality of the province of Burma that, in a year of greatly lowered prices, the country should have taken and absorbed a much larger quantity of foreign goods than ever it did before.

Other routes of trade.

83. On the minor trade routes there has been considerable decrease in the traffic with Yahine and the northern tributary States of Siam. The lawless state of the border is the cause of this decrease. On the British side additional police-posts have been established; and the Government of Siam have been moved to energise somewhat their local representatives in that quarter. Roads are being surveyed and improved towards Zimmay in the Salween valley, and from Tavoy across the hills into the plains of Siam. If a good cart-road can be made on this latter route, there seems hope of much increase of traffic between Siam and British Burma.

Trade route to Western China.

84. The trade across the land frontier of British Burma is, according to the latest published reports, nearly one-half of the whole traffic that crosses the land frontier of continental India from Kurrachee on the west to Chittagong on the east. But the Burma trade would expand indefinitely if only a safe road existed between Bamo on the Irrawaddy and the confines of Western China. During the last year two English missionaries travelled from Bamo across the hills into Yunan, and through Western China to the Yellow river, on which they voyaged by

boat and steamer to Shanghai. One of the travellers had been several years in China and knew Chinese well. They were unarmed and had only two attendants. They were molested once only, and that was at a place two days' journey out of Bamo, half-way from the Irrawaddy river to the Chinese frontier. Directly they reached China they met with uniform friendliness and hospitality. They found the Convention of Chefoo thoroughly known and observed, and the people wondering why no British merchants had come to settle at Talifoo and other towns on the trade route. The travellers reached Talifoo in 21 days, the capital of Yunan in 46 days, and the Yangtsi river in southern Sechuen in 68 days. At this point they were 1,756 miles from Shanghai; and they did the rest of their jonrney by the Yellow river, excepting the 100 miles of rapids and rocks between Quei-chow and Ichang. The flotilla steamers reach Bamo from Rangoon in 15 to 20 days; and it seems certain that for the millions of Chinese in Yunan and Southern Sechuen the Irrawaddy and Bamo route would be a far nearer, quicker, and cheaper route for trade with Europe, if only the road from Bamo to the Yunan border were safe. When satisfactory relations with Mandalay are re-established, attempt must again be made to co-operate in making and protecting the road from Bamo into China.

Rice-mills and saw-mills.

85. The most important industries in Burma are the rice-mills, which free the rice from the husk and prepare it for the European, American, and Chinese markets. It is the enterprise and the skill of the mill-owners that have increased* and that maintain the rice trade of Burma. The mills ensure a ready market and a full price for all the surplus paddy (rice in husk) which any farmer can send by boat or rail to a rice-port, and they provide cargoes for the steamers and sailing vessels which flock to Burma ports. Three new rice-mills have been opened during the year, and there are now 49 rice-mills at work in Burma, of which 28 are in Rangoon; there are seven rice-mills at each of the other rice-ports, namely, Moulmein, Akyab, and Bassein. Twenty of the Rangoon mills can prepare white rice fit for European consumption; the rest of the mills prepare cargo rice, which has again to be passed through cleaning mills in London, Liverpool, Hamburgh, and Bremen. White rice cannot stand the long voyage round the Cape, but it bears the shorter journey through the canal to Europe very well. Considerable improvements have recently been introduced in the machinery and working of rice mills. In some of the mills the engines burn only rice-husk for fuel instead of coal, an arrangement which not only is an economy to the mill-owner, but is of advantage to the public, as the hundreds of thousands of tons of rice-husk thrown into the creeks every year threatened to close some of the channels. The electric light has been adopted in four of the larger mills, which work day and night during the busy season.

There are about 20 steam saw-mills, of which two were erected during the year. They are at Rangoon, Moulmein, Tavoy, and Shwayggyin. Of the total number of mills in the country, European merchants own 41 rice-mills and 10

* The rice trade of Burma seems to have begun long ago. In an old book entitled "Purchase his Pilgrimage," published in 1614, the author, writing of the "kingdom of Pegu or Burma," says it "so abounded with wealth that a hundred ships than ht with rice seemed to diminish nothing of the plenty. The fields are said to yield three harvests in a year." At the present time Burma rice is sent direct from the mills to England, Italy, Austria, Germany, Holland, France, Brazil, the Straits, China, and the Mauritius. It seems to be making its way into new fields. A recent report mentioned that Burma rice had reached Iceland; and a merchant, who had just returned from Europe, brought word that in Northern Germany rice was coming into use as an article of food among the poorer classes.

timber saw-mills; Chinese, three rice-mills and four saw-mills; Burmese, two rice-mills and two saw-mills; Parsees, one rice-mill; Moguls, one rice-mill and one saw-mill; Natives of India, one rice-mill and one saw-mill; and the King of Burma one saw-mill.

Weaving.

86. Next to agriculture and occupations connected with the preparation of rice for market the most important industry is weaving. At Prome, Shwaydoung, Yandoon, and other towns in the Irrawaddy valley there used to be a large production of silk putsoes, tameins, and goungboungs (garment-pieces worn by Burmese men and women). But the power-looms of Europe are now sending large supplies of these fabrics woven on Burman models. The imported article undersells the local fabrics, which are now produced in much smaller quantity.

The Mandalay and Prome silk garment-pieces, though 30 per cent. dearer, are reputed to be stronger and more durable both in texture and in colour than the imported fabrics. Almost every Burman man or woman in the country has one or more of these silk garment-pieces, to be worn on festivals, or oftener if the owner can afford it. The Burmans prefer gay, cheerful colours, such as bright pinks, yellows, greens, and combinations of these colours. A Burman crowd on a feast-day is a gay sight, lit up as well by the bright colours of the clothes as by the smiling faces of women and children, who mingle freely with men on all such occasions. The dark-blue cotton clothes worn by the Shans, men and women, serve to set off the gay dress of the Burmans and Karens.

Lacquered-ware.

87. Drinking-vessels, boxes, and other articles of lacquer-ware are made and used in all parts of Burma. Every Burmese monk has two or three large lacquer-vessels for collecting daily contributions of food from his constituents. The groundwork of these articles consists of very fine bamboo wicker-work, on which are overlaid coats of lacquer, the chief ingredient in which is oil or resin from the thitsee tree. Little or no lac is used in Burmese lacquer-ware. The Burmese ornament their temples, their monasteries, and sometimes their dwelling-houses with a profusion of quaint, delicate, and sometimes beautiful wood carving. Skilful master-carvers are much esteemed among the people. Ironsmiths are found in almost every village, but their skill goes no further than fashioning rude sword-blades and tools for husbandry. They use English iron almost exclusively. A good deal of quaint gold and silver work is made everywhere in Burma; and *repoussé* silver bowls are to be found in every monastery and in every respectable Burman's house. As a rule, Burmans of all classes invest their savings in gold and silver ornaments. During the last five years the imports of treasure in Burma have exceeded the exports of treasure by £5,860,000, the yearly surplus varying from £1,980,000 in the year of high prices caused by the Madras famine to £540,000 in the year that has just passed. The bulk of this money is absorbed by the people and converted into ornaments.

Wood-carving.

Coal, iron, tin, and lead.

88. There are large workable deposits of coal in the Mergui district. But the coal is some days' journey up the Tenasserim river, in a very sparsely peopled valley. As yet no attempts have been made to work this coal; and under present circumstances it could not be brought to the Rangoon market at such a cost as to compete with

foreign coal. English coal is put down at the rice-ports at about Rs. 18 per ton. Moderately good coal was found by Dr. Oldham, of the Geological Survey, in Upper Burma, about 50 miles north of Mandalay. Last season coal, to all appearance of good quality and in great quantity, was observed by Mr. Bryce in the bed of the Chindwin river, at a point navigable by a steam-launch in the month of February, and about 250 miles by river beyond the British frontier. At neither place has the coal yet been worked to advantage. Iron ore used in byegone years to be largely worked in the Tavoy district; but at present nearly all the iron used in Burma comes from England. Even in Upper Burma, where at the time of Dr. Oldham's visit in 1855 only five per cent. of the iron used was found to be imported, English iron is now said to be coming into general use. Machinery for smelting iron ore and making iron by the most approved processes was erected by the late King at the Sagaing iron-field; but as yet nothing further has been done towards producing iron. Rich deposits of tin in the south of the Mergui district have been worked fitfully by Chinese immigrants for many years. But for some reason the tin working has not been nearly so brisk or successful in British territory as it is in the adjoining Native States, although the tin deposits are said to be equally rich. The master-workers say that in Native territory their miners are in some degree enslaved and so cannot run away, while in British territory they are free to do as they like. With the sanction of the Government of India the export duty on tin, five per cent. *ad valorem*, was taken off last year; and this year a small coasting steamer, with the help of a Government subsidy, is to ply along the mouths of the rivers where the tin-workers congregate. The effect of these measures on the tin industry will not be manifest for a year or two. An Englishman of Moulmein has obtained a prospecting license over certain lead-producing hills in the Salween valley. There is no doubt about the lead being there, for a few Burmans and Karens extract small quantities every year; but it has yet to be seen whether the lead can be worked at a profit. The subsidized steamer service about to be established on the Salween will facilitate the operations of the prospector and his miners. Another Englishman has obtained a license to prospect for antimony in the hills within seven miles of Moulmein; he is sending to Europe a sample of 20 or 30 tons of the ore to find what it is worth in the market. A good deal has been written in past years about the geology, metals, and minerals of Burma; but many of these writings were buried away in official gazettes or in other publications not readily accessible to the general public. All these papers have been now, as far as possible, collected, and are being republished in a single volume under the supervision of an officer of the geological survey.

Bamboo paper industry.

89. For several years Mr. Routledge, an English paper manufacturer, has written about the possibility of making good paper out of bamboos. He considered that Burma was the best field for starting a bamboo industry. Bamboo-stock was sent home to him; and the stock was made into excellent paper. But the matter never got beyond the region of pamphlets, until this year when Mr. Pratt Barlow, a paper manufacturer of experience, came out to visit the bamboo forests of Burma. He reported in favour of starting a factory in Burma for the making of paper-stock on a moderate scale. The Government of India have sanctioned concessions to Mr. Routledge and his assigns of as much bamboo forest as he wishes to work. The

concession is to be free of all duty or royalty for ten years; and the concessionaire is to receive a royalty of at least one rupee per ton on all bamboo-paper stock which other manufacturers may take out of the Burma bamboo forests for the next thirty years. The concession saves all existing private rights in the bamboo forests. Nothing has yet been heard regarding any action to be taken on this concession. If bamboo-paper stock turns out as satisfactory and can be made as cheaply as *esparto* grass stock, an important new industry will soon grow up in Burma.

Earth-oil production.

90. Considerable quantities of crude, very thick earth-oil have for years past been brought into Rangoon from Yaynangyoung, a place on the bank of the Irrawaddy in Upper Burma, about 50 miles beyond the British frontier. This oil is used to some extent in a crude state; and a good deal is prepared for market in a Rangoon refinery established by an English firm some years ago. In Arakan earth-oil wells had been worked by the people in a small way for about a hundred years. The oil extracted from the Kyoukpyoo wells was particularly clear, and is burnt in English lamps without refining. For this oil a good local market can always be had, and as much as 40,000 gallons a year have been exported from Kyoukpyoo. Three years ago concessions were given to a Mr. Savage and also to an English company for the working of oil-wells on the Boronga islands near Akyab. Both these parties are also owners of some of the old oil-wells on Kyoukpyoo island. Mr. Savage, who began first, has for the present given up his Boronga working, and was for a time raising by hand-pumps about 200 gallons a day from two of his wells on the Kyoukpyoo island. His wells do not go deeper than 130 feet. Natives are also raising oil in moderate quantities from about eight wells in the Kyoukpyoo island. The appliances of these oil-workers are rude, and their wells are shallow. On the whole, Mr. Savage and the Native oil-workers as yet barely raise 50,000 gallons of oil during six months of the year. The Boronga Oil Company have gone into the affair on a very much larger scale. They have sunk from £30,000 to £40,000 in the business; they have imported six experienced engineers and workmen from the Canadian oil-fields; they have brought out steam machinery for boring wells and for raising oil, and they have got oil-refining appliances on the spot. They have proved the Boronga field, and they are now engaged in proving the Minbyin field in Kyoukpyoo island. One of their four wells on the Boronga island went down over 1,000 feet; and from one well they for a time won as much as 1,000 gallons of oil a day. Until the Kyoukpyoo field shall have been proved, and a steady daily supply of oil secured from a sufficient number of wells, the commercial success of the enterprise will not be secure. All that expenditure, experience, and enterprise can do is being done to ensure success. The Kyoukpyoo earth oil, in its crude state, now fetches five annas per gallon for export from Kyoukpyoo. Burma alone takes £90,000 worth of American petroleum annually; so there is a good market at hand for all the oil which the Boronga Company can produce.

Agriculture.

91. Though British Burma is noted, above most other parts of India, for the greatness and the growth of its external trade, yet the province is almost entirely dependent for its prosperity on its agriculture. The staple trade of Burma—the trade which brings prosperity to the country—is the trade in rice, which is prepared for

European, Chinese, and American markets by power mills at the four seaports. The demand for these mills keeps up the price of rice. There is plenty of good land, and there is a bountiful rainfall. Hitherto there has been no check in the rapid extension of cultivation, wherever means of communication existed or were provided. Every bag of rice that can be produced, and is not required for local consumption, can be sold immediately it reaches the seaport at rates which amply repay the peasant-farmers.

Area under different crops.

92. The information recently gained by the cadastral survey in three of the delta districts shows that the returns heretofore accepted of cultivated land are below—probably not less 15 per cent. below—the truth. If ten per cent. additions be made to the previously accepted figures, the main agricultural statistics of the province are—

Total area		87,220 square miles.
	or *about*	56,000,000 acres.
Cultivated area, *about*		3,950,000 ,,
Area growing rice		3,400,000 ,,
Average yield of paddy per acre, *about*...		32 baskets or bushels.
		equal to 1,600lbs.
Number of cattle, including buffaloes which are used largely for agriculture		1,534,317 head.
Number of carts		247,500 ,,

Besides rice the areas of the principal crops in the province, according to the latest returns, *plus* 10 per cent. as above, are—

	Acres.
Mixed fruit-trees	115,000
Danee palm (used for thatching and also for extracting sugar) ...	31,000
Tobacco	13,700
Plantains	13,600
Vegetables	11,800
Areca-nut	14,200
Cotton	9,000
Sugarcane	6,600

As railway and steamer communication increases and connects Burman fruit gardens with distant markets, the area under market gardens in the districts where such crops are profitable may be expected to increase. As an illustration of the fertility of the land and the variety of its products may be cited an extract from a recent report to the effect that "in a single orchard were counted the "following fruit-trees and plants, all more or less in bearing, namely, cocoanut, "areca-nut, jack-fruit, dorian, mango, orange, lime, mangosteen, pine-apple, black-"pepper, mayan-thee (*anglice*, marian), plantain, and coffee."

Tobacco.

93. The staples in which there is really great room for improvement are tobacco, sugar, and cotton. The tobacco grown on the banks of the Koladan river in Arakan, tobacco cured at Kyoukkyee in the Sittang valley, and tobacco grown on the island of Beloogyoon in the Amherst district, all have local note. The local demand for tobacco is prodigious. Every man, woman, and weaned child in the country smokes more or less constantly. Burman cigars, especially those made at Moulmein, are making their way in the Indian market; and forty to eighty thousand cigars are now being sent every month from Burma to England. Yet, notwithstanding the goodness of the local tobacco, the great bulk of the Burman cigars for foreign consumption are still made from Rungpore and Coringa (Godavery island) tobacco. The attempt to work a tobacco farm at Myouktoung on the Koladan broke down from causes some of which could be avoided in future undertakings of the kind

There is little doubt but that, if a tobacco-growing and tobacco-curing establishment were started by competent persons and under adequate supervision in any of the tracts above mentioned, such an undertaking would have much prospect of success. If it succeeded, a valuable export staple would be added to the products of Burma. The climate is apparently better suited for tobacco than that of Ghazeepore or South Tirhoot. The rainfall ranges from 36 inches a year in Thayetmyo to 200 inches in Akyab and Tavoy. Over the greater part of the province the average rainfall is between 60 and 120 inches.

Sugarcane.

94. The soil of the delta districts is well adapted for growing sugarcane without irrigation. Many years ago attempts were made to establish sugar factories near Moulmein; but the company failed, partly from lack of funds and partly because they began on too large a scale. At the present time the production of sugar, either from cane or palms, is very small; and British Burma imports annually large quantities of molasses (jaggery or goor) from Mandalay, while nearly all the sugar required for sweetmeats or for household use is imported by sea. There is a very large field for fostering and encouraging the sugar industry.

Cotton.

95. Cotton is grown mainly on toungyas (hill gardens) or on the uplands of the Thayetmyo district. The area under this staple is perhaps understated. Still it seems clear that the breadth sown with cotton has fallen off considerably of recent years; smaller quantities of raw cotton are being imported from Upper Burma; and the local weavers are taking more and more to the use of Europe yarns. The condition of the cotton-growing industry merits careful attention. The staple can hardly be said to have given way before rice-crops which pay better, inasmuch as cotton grows for the most part on the uplands of Thayetmyo and Prome, where good rice-fields can hardly be expected.

Tea, coffee, and cinchona planting.

96. There is some scope for the exertions of Government in establishing or encouraging plantations of coffee, cinchona, and tea. Already tea, cinchona, and coffee have been grown successfully, though not to a profit, on the Toungoo hills and in Arakan. In Tavoy and Mergui we have the same equable climate, the same bountiful rainfall, as are found in Ceylon and the Wynaad. There are also hill slopes ranging up to 6,852 feet in height. If only labour and capital can be attracted thither, there is no reason why Tavoy, Mergui, and the fertile, but as yet uninhabited, islands off their shores should not grow excellent coffee and cinchona. Agriculture in these districts is benefited by showers during the months of March to May, and so escapes the long five months' drought which is so hurtful to tea, coffee, or cinchona in the northern and in the inland districts of the province.

Potatoes.

97. Potato culture has been tried with varying success in the Toungoo hills. In Thayetmyo potato experiments have, so far, invariably failed. There is, however, a demand for potatoes for the use of European troops. If the cultivation succeeded and good potatoes could be cheaply produced, a large local demand would arise, as the Burmans are great consumers of yams and other edible tubers.

98. The returns show that cattle have increased from 991,113 head of all kinds in the year 1870-71 to 1,534,317 in the past year. But the demand for cattle and the mortality among cattle is still very large. Nearly 25,000 head are imported yearly into British Burma from the countries beyond the border. No year passes without cattle-disease, in epizootic form, prevailing in one or more districts. In Bassein cases have come to light where a majority of the landholders over considerable areas have got into debt by reason of cattle-plague and the cost of replacing their plough-cattle. A school for teaching Burman and Karen boys the art of healing cattle has been open and has been well attended for the past two years. The passed students of this school are employed at cattle-markets or practise for themselves. Already the offices of these Burman cow-doctors are becoming appreciated by the villagers. The provision and the careful protection of sufficient grazing grounds in every village will do much to reduce the great mortality which now occurs among plough-cattle in Burma.

Cattle-disease.

99. For the encouragement and promotion of agriculture in Burma the Government of India has, during the present year, sanctioned the appointment of a Director of Agriculture, who is to work on the lines laid down by Mr. Buck in the North-Western Provinces of India. As yet a suitable candidate for the new office has not been found. The attention of the department would, in the first instance, be devoted to rice, which is *the* great staple of British Burma. It may be doubted whether English agriculturists have much to teach the Burmese regarding the culture of their rice-fields. In Burma there is little artificial irrigation; and the greater part of our rice-lands are, for part of the season, more or less submerged by streams and floods in the course of nature. As yet it is doubtful if we can, by means of embankments, usefully do much to prevent such submersion of rice-fields.

Director of Agriculture.

100. One great field which the Agricultural Department would at once take up would be the provision of labour-saving and other improved appliances for ploughing, sowing, reaping, and winnowing the rice-crop. Field-labourers have to be brought from Upper Burma and from India to plough and to reap the crop, and these labourers earn wages equal to Rs. 17 and Rs. 18 a month. Even at these rates labourers cannot be had in sufficient numbers, and enormous areas of excellent land are left untilled merely because enough labourers cannot be found. If simple and cheap farm machinery could be worked to advantage for a season or two in the rice districts, the Burman peasantry have spirit enough, they have money enough, and they can act together sufficiently to provide themselves with really useful and serviceable agricultural appliances, or to employ machines which it may be found possible to move from place to place in the rice districts. A first step towards providing such machinery has been taken by an American firm, who sent out a reaping machine to Burma last season. The machine was in charge of a mechanical engineer, who observed what changes Burman agriculture required, went back to America, applied his conclusions by introducing certain modifications in the machine, and has sent out this season a small number of machines modified to suit Burman requirements. The cost of the machine is heavy; but if it answers it will save a great deal of time and labour and will pay well. The Government have bought six of these machines and are going to lend them to trustworthy men, who will hire them out from village to village.

Labour-saving machinery.

Model farm.

101. Land for a model farm has been taken up close to the reformatory at Poungdeh. The site is within half-a-mile of a railway station, close to a sub-divisional officer's quarters, and on fair but not absolutely first class soil; with a medium rainfall of 45 to 60 inches; at a town with some 6,000 inhabitants. The reformatory will shortly open with 20 inmates, and it will eventually contain about fifty boys and youths. The labour of these youths will be available for the model farm. Hereafter, when the Sittang Valley Railway is open, there can be another model farm established near Pegu if the Director of Agriculture thinks it necessary.

Immigration.

102. One of the great needs of Burma is additional population. The natives of the province are multiplying as fast as they can, and considerable additions are made annually to the people by immigration from Upper Burma and from India. The census shows that the number of people of Indian birth is 184,729, and that there are now in British Burma 316,018 persons who were born in the Kingdom of Ava. Few of the immigrants bring their wives and children. Upper Burmans, who settle as cultivators in British Burma, usually get the women of their family down to them somehow despite the stringent rule against emigration from the Kingdom of Ava. Immigrants from India hardly ever bring their wives. They mostly come over as labourers, intending to return home. A small but gradually increasing number eventually settle in Burma as cultivators. Immigrants into Arakan mostly come from Chittagong and travel by land. More than 80,000 such immigrant labourers are said to have been counted last year on the high road between Chittagong and Akyab. For the convenience of this stream of emigration a new road is being constructed over the hills from the Chittagong border to the Myo river, on which one or more steamers are to ply during the immigration season. Further aid to immigration in this quarter is not at present wanted. To Pegu and Tenasserim immigrants come by sea from the Madras coast and from Calcutta. Formerly a large number of such immigrants used to reach Burma in Native craft; but the whole carrying business between India and Burma is now done by steamers. Last year 40,592 such immigrants came by sea and 18,128 returned home by sea to India. The immigrants are brought over by Native captains of labour, who pay the passage of the coolies, receive them, and provide them with work, and realise the advances out of the first few months' wages earned by the coolies. It has on occasions been said that the coolies are in a manner enslaved by the maistrees, and that the Government ought to deliver them from such thraldom. But the coolies seem to thrive under the present arrangements; they get rich; they go back home; they come over here again perhaps with one or two more relatives another year; and, finally, some of them settle down here and prosper. The maistrees get over more labourers; provide for them better; meet the wants of the labour market more regularly; and generally manage the business more cheaply than Government could do. Under the present system no women, or next to none, come over with the immigrant labourers. Formerly about 16,000 immigrants a year used to come to Rangoon in this way. In 1880 a new Steamer Company, the Asiatic line, came on the Burman station. The passage money of coolies from India to Rangoon was reduced 50 per cent. and the number of coolies conveyed to Pegu at once doubled. Still the rate of wages does not go down. All the immigrants at once find employment, and the demand for outside labour is as great as ever.

Proposals for promoting immigration.

103. The only way in which Government can usefully interpose to promote immigration into Burma is to bear part of the cost of every immigrant's passage, in fact to assist immigration in the same way that the Australian colonies used formerly to assist, and the Canadian Dominion now assists, immigration. The Arakan immigration may be left unassisted, save in so far as the roads and other communications now under execution will facilitate the journey from Chittagong. But, for immigrants to Pegu and Tenasserim, it is proposed that the provincial Government should contribute Re. 1-8-0 for every Calcutta immigrant and Rs. 2-8-0 for every Madras-coast immigrant, on condition that the Steamer Companies in their turn would make some reduction in fares. In this way it is hoped that immigrants' fares may be brought down to Rs. 5 a voyage from Calcutta and Rs. 8 or Rs. 10 from Madras. The cost of such a contribution would be from Rs. 80,000 to Rs. 1,20,000 a year. The proposal is under the consideration of the Government of India. If it is approved, some further arrangement will be made for inducing immigrants to bring their wives and settle as cultivators. The Madras immigrant is a thrifty person, and is able after two years' work as a farm labourer to buy a pair of buffaloes and set up as a cultivator on his own account.

Quest for sanitaria.

104. It has been a drawback to life in Burma that we have no sanitarium, or cool hill-climate, where Europeans can recruit their strength. European soldiers when weakened by the climate are sent across the Bay of Bengal to a sanitarium in the Neilgherry Hills, distant about 1,500 miles from the cantonments of Burma. At intervals attempts have been made to establish seaside sanitaria at Dalhousie near the mouth of the Bassein river, at Amherst near the mouth of the Salween, and at Nyoung-gyo, a small plateau on the Arakan hill range. But none of these places answered. Another site is now being tried at Thandoung-gyee, a hill 3,900 to 4,500 feet above the sea. This site is within 23 miles of Toungoo town, to which place a railway will be open in the summer of 1884. A cinchona plantation, which is doing moderately well, was established on the Thandoung-gyee plateau some years ago; the plants suffer not from the heat, but from lack of rain during the spring and summer. During five days in May 1881, the hottest time of the year, the daily maximum reading of the thermometer in the shade ranged from 76° to 82° Fahrenheit. The mean of the five daily observations taken at 10 A. M., 4 P. M., and 10 P. M., together with the maximum and minimum, give an average of 69° as the mean temperature of the five days. The mean maximum reading at Toungoo, 23 miles off in the plains, for the same five days was 100·7° Fahrenheit. The soil of the plateau consists of decomposed granite and gneiss. There is abundant supply of excellent running water during the driest time of the year. The road to the sanitarium is being improved. The military authorities are going to keep a small detachment of Europeans there during the hot months of the year 1882. The site has also been examined in August, but the place is unsuitable for Europeans during the rainy season by reason of the constant rain and mist. During the monsoon months, however, the climate of Toungoo and the plains of Burma is very bearable; and it seems to be at Rangoon only that the troops succumb to the damp and to complaints caused by damp. Whether Thandoung-gyee will turn out a satisfactory sanitarium it is as yet impossible to

say. There is a higher ridge, called the Nattoung hill, about 70 miles from Toungoo. But there is no road thither, the place is almost unexplored, and the nearest Karen village is said to be 18 miles from the summit. Among the ranges behind Moulmein there are two peaks of 6,000 and 7,000 feet high. But they are difficult of access except in the height of the rainy season, when all the small streams are navigable; and on the higher of the two hills there is no water within some thousands of feet of summit in the dry season. A ridge named Nwalabo in the Tavoy district, whereon is a considerable stretch of ground 5,000 feet high, was also explored. But any road to Nwalabo would be difficult and costly to make; the slopes, which receive showers all through March and April, would probably be very suitable for coffee and cinchona. There is another ridge, named Myinmoletkhat, about 30 miles south of Nwalabo; the summit of this ridge is 6,852 feet high, but the place is rather out of the way for a sanitarium. The Deputy Commissioner of the Arakan Hill Tracts tried this summer a sojourn on the Kyoukpandoung plateau, which is about 20 miles distance from the Koladan river, and is 1,000 feet above the sea. The climate was pleasant until about the end of March, when continued storms of wind and rain set in and made life in temporary quarters on the top of an isolated ridge unbearable. It is not yet certain whether Kyoukpandoung must be condemned as a possible sanitarium for Akyab. There can be no doubt but that Arakan is the least healthy part of British Burma, and that European residents there require change of air more than people in Pegu or Tenasserim.

PART II.

DEPARTMENTAL CHAPTERS.

I.—PHYSICAL AND POLITICAL GEOGRAPHY.

In the Administration Report for 1872-73, pages 1—18, the following subjects have been treated in a permanent form for reference :—

	Pages.
Physical features of the country, area, climate, and chief staples	1—12
Historical summary	13
Form of administration	14
Character of land tenures : system of surveys and settlement	15—16
Civil divisions of British territory	17—18

Changes in the Administration.

2. The appointment of Chief Commissioner was held from the 1st April to the 2nd July by Mr. (now Sir C. U.) Aitchison, C.S.I. On the latter date Mr. Aitchison was appointed Provisional Member of the Governor-General's Council and Mr. C. E. Bernard, C.S.I., who was appointed to officiate for him as Chief Commissioner of British Burma, held the appointment until the end of the year.

3. The number of divisions and districts into which the province is divided remained the same as in the previous year.

Relations with Tributary States and Frontier affairs.

Upper Burma.

4. The peaceful relations between the British and Burmese Governments continued during the year 1880-81. No British Resident was stationed at Mandalay, but direct communication was maintained without difficulty with the Avan Court. In June the Nyoung Oke Prince, one of the refugee Princes who quitted Mandalay shortly after the death of the former King, made an attempt at insurrection; but his operations were feeble and merely caused some temporary disturbance on the frontier. The Prince made his escape into British territory, where he was detained and removed to Calcutta. Towards the end of the year the Burmese Government began to establish monopolies of various articles of produce, and have added to their number since the close of the year. Representations have been addressed to them on the subject of the injury done to trade by the creation of these monopolies. The matter is still under discussion with the Burmese Government.

Our relations with the other States on the borders of Burma hardly call for remark. There was some intercourse with the Chiefs of Western Karrennee, but not of an important character. In Yahaing in Siamese territory some trouble was given by marauding bands, which plundered along or across our frontier; the police on the British side have been strengthened since the close of the year, and the King of Siam has been moved to enforce order on his side. On the borders of Northern Arakan the independent Chiefs and their tribes have been remarkably peaceful.

II.—ADMINISTRATION OF THE LAND.

Surveys, Settlements, and Waste Lands.

THE work of this department for the year under report may be considered under the following heads:—

I.—Demarcation { (*a*) temporary; (*b*) permanent.
II.—Cadastral survey.
III.—Regular assessment and settlement.
IV.—Supplementary survey and registration.

I.—DEMARCATION.

Temporary demarcation preliminary to survey has been conducted in accordance with the rules framed under the "Burma Boundaries Act." Burman Extra Assistant Commissioners have had charge of the work which has been carried out in the districts of Hanthawaddy and Bassein, the demarcation of Tharrawaddy having been completed in the previous year. The Settlement Officers, who are also Boundary Officers under the Act, have closely supervised the work of the Demarcation Officers. Up to date preliminary demarcation is well ahead of the cadastral survey.

The areas thus demarcated during the year are not precisely known, but it may be stated that very small areas now remain for temporary demarcation in the Hanthawaddy and the Bassein districts. The people have co-operated with the Demarcation Officers, and no serious difficulties have been encountered.

The actual cost of demarcation consists in the pay and travelling allowances of the Extra Assistant Commissioners and their establishments. One Extra Assistant Commissioner in the Hanthawaddy district has been employed at this work throughout the year, and for some little time two Extra Assistant Commissioners were simultaneously at work in that district. In the Bassein district one Extra Assistant Commissioner was so occupied throughout the year. The cost of preliminary demarcation has been—

	£
Hanthawaddy	369
Bassein	202
Tharrawaddy	*Nil*

Permanent demarcation has been vigorously carried out in all three districts by the boundary surveyors. "The survey stations (theodolite stations) which lie "upon the actual line of boundary are permanently marked by drainage pipes sunk "nearly flush with the ground, and their exact positions are shown on the "maps." Hitherto the people, generally, have abstained from interfering with these marks. In a few kwins however in the Bassein district some of the pipes were wilfully destroyed. The offenders were not discovered, but a prompt investigation put a stop to further mischief of this sort.

II.—CADASTRAL SURVEY.

Cadastral survey operations have been steadily carried on throughout the year in the three districts of Hanthawaddy, Bassein, and Tharrawaddy. In Hanthawaddy and Bassein two full parties have been at work under Majors Sandeman and Steel, and half a party under Mr. Talbot in Tharrawaddy.

The details of the work done and of the expenditure incurred are shown in the following table :—

Work done and expenditure incurred by the cadastral survey parties in the season 1880-1881.

1	2	3	4	5	6	7	8	9	10
District.	Total area (in square miles) cadastrally surveyed.	Total area (in acres) cadastrally surveyed.	Total cultivated area (in square miles) cadastrally surveyed.	Total cultivated area (in acres) cadastrally surveyed.	Total number of fields.	Average size of the cultivated field.	Total cost	Total cost per acre cadastrally surveyed.	Total cost per acre, if temporary exceptional outlay be omitted.
	Miles.	Acres.	Miles.	Acres.	No.	Acres.	£	£ s. d.	£ s. d.
Hanthawaddy ...	907*	580,480	786†	503,040	359,820	·71	17,509	0 0 7	
Bassein ...	562	359,680	237	151,680	259,096	·58	18,635	0 1 0	0 7 3
Tharrawaddy ...	461	295,040	200	128,000	300,000	16	9,666	0 0 7	
Total ...	1,930	1,235,200	1,223	782,720	918,916	·58	45,810	0 2 3	

The above table shows the cost of the work of the field season and of the recess which followed it. The outturn of the year is far greater than the outturn of the previous year, and the cost acre by acre is slightly less. The cost of the work for 1879-80 as shown in the table in last year's report was 9½*d.* per acre, but, deducting an exceptional outlay, the cost was estimated at 9*d.* per acre. For the period now under report the actual cost per acre is 9*d.*, but from this if a certain exceptional outlay in Bassein be deducted the total cost per acre would be 8½*d.* The total cost in column 8 (£45,810) represents the cost of 1,930 square miles cadastrally surveyed and of a large area of preparatory boundary survey. It will be noticed that the cost of cadastral survey has been cheaper in Hanthawaddy than in Bassein or Tharrawaddy. In the Bassein district the clearing of jungle for survey purposes is exceptionally laborious, and, owing to the network of creeks which overspreads the country, the cost of transport is great. The survey officer reports that the cultivation was much scattered in heavy jungle, that the fields were small, and, in some instances, very irregular in shape. Out of 562 square miles cadastrally surveyed in the Bassein district, Major Steel reports that "170 square miles underwent revision and 254 square miles of old work was revised," and that the "total area operated on was 1,324 square miles." The exceptional outlay in the Bassein survey to which allusion has been made is classified by the survey officer under the following heads :—

(*a*) sickness, much of which was attributable to the fact that old and worn-out men had been sent over from India in considerable numbers: many of these died, and 47 had to be sent back to India "to save their lives;"

(*b*) delay in commencing work;

(*c*) loss on account of excess of imported labour and transfer of men to other departments.

The total exceptional outlay under these three heads is estimated by the Survey Officer at £1,367.

Apart altogether from the benefits resulting from the survey itself, the cadastral parties are doing a great service to the province in training up a large number of Burman, Karen, and Arakanese surveyors; candidates for survey teaching are freely enlisted in all the offices, and the favourable reports from the

* Includes 60 square miles on 2 inch scale. | † Culturable area

Superintendents of Survey testify to the good work which has been done by the indigenous surveyors, who now outnumber the professional surveyors imported from India. A special class for survey teachers has been established by Major Steel in connection with the American Baptist Institute at Bassein, and it is expected that this class will turn out about 20 surveyors fit to be employed in the season about to begin.

III.—Regular Assessment and Settlement.

Settlement operations have been in progress in the three districts of Hanthawaddy, Bassein, and Tharrawaddy. Captain Parrott has been in charge in Hanthawaddy, Mr. Bridges in Bassein, and Mr. Adamson in Tharrawaddy. The reports of these officers have been much delayed in the final. The correction of the errors and omissions of the survey brought to light by the Settlement Officer when he traverses the ground afresh, and, above all, the survey of extensions of cultivation in order to bring the maps up to date, take up much time, and until the maps have been finally corrected and brought up to date, the Settlement Officer is unable to complete his registers and to report upon the work of the season. The experience of the past year has taught the need of special arrangements for reducing to a minimum such delay in the future. Henceforth there will be attached to the camp of each Settlement Officer a small staff of surveyors, whose duty it will be to correct the maps on the spot and return them immediately to the Settlement Officer. Time hitherto lost in sending maps and statements to and fro between distant offices will thus be saved.

The total area dealt with by the Settlement Officers is 1,088·85 square miles, or 696,864 acres. Of this, 307,419 acres consist of land under cultivation and assessed to revenue. The cost of settlement for the whole area of 1,088·85 square miles has been £9,084, or at the rate of 3*d.* per acre.

The proposals of the Settlement Officers have not yet been sanctioned, but they exhibit the following revenue results for the settlement tracts dealt with during the past season : –

District.	Expiring assessments		Proposed assessments	
	Without cess.	With cess.	Without cess.	With cess.
	£	£	£	£
Hanthawaddy	44,109	48,520	49,625	54,588
Bassein	16,529	18,182	13,914	15,306
Tharrawaddy	3,129	3,441	3,697	4,067
Total ...	63,767	70,143	67,236	73,961

		Acres.
Areas according to Thoogyees' registers		259,029
Ditto to cadastral survey		307,419
	Increase ...	48,390
	Or per cent. ...	18·68

It must be remembered that no enhanced rates can take effect before 1883.

Hanthawaddy settlement tract.

5. The Hanthawaddy settlement tract covers an area of 568·31 square miles or (363,720·09 acres), being 136·24 square miles more than the area dealt with in the previous year. For purposes of assessment the whole area has been sub-divided into seven tracts, the difference between each tract being due "entirely to the facility the one has over "the other for the disposal of its produce," Rangoon being the export market. The rates at present assumed for these tracts range from £4 to £6-10-0 per hundred standard baskets. These rates are considerably less than the two rates (£7-10-0 and £7-0-0) which were adopted for the two assessment tracts of the previous year, the diminution being attributed to the fall (13 per cent.) in the export

price of paddy. According to the prices-current furnished by the Rangoon Chamber of Commerce, the following are the means of the monthly average prices for the years indicated :—

	£
1878	11
1879	10
1880	10
1881 (10 months)	8

Paddy, or rice in husk, is the produce of the tracts under settlement, all other crops being very insignificant. The average area of the paddy holding in the Hanthawaddy tract now under report is said to be 33·51 acres, or about 9 acres less than the average holding in the tracts of the previous year. There is reason to believe, however, that the average area of the *worked* holding in the tracts now under report is somewhat in excess of the area above given.

Two soil classes have been adopted by the Settlement Officer, the assumed average outturn being—

I class	40 baskets an acre.
II do.	30 ditto.

These yields are based upon numerous crop-cuttings throughout the tracts, and they have been carefully tested by other independent enquiries. The assumed local rate being applied to the assumed yield, we have the local value of the gross produce ; from this are deducted the cost of cultivation and the cost of living ; the balance remaining constitutes the net profits, of which the State claims one-half.

The cost of living of the ordinary agricultural family has been this year assumed to be—

	£	s.
Per acre	0	12·58
And of cultivation per acre	1	4·19
Total cost of living and of cultivation per acre ...	1	16·77

The rates proposed by the Settlement Officer range—

		s.	d.		s.	d.	
For I class soils...	from	3	4	to	6	0	per acre.
For II ditto	,,	2	6	,,	4	9	

The highest existing rate is 6*s.* 3*d.* and the lowest 3*s.* 9*d.* ; but these are the results of the summary enhancement of 25 per cent. in 1878-79, previous to which the highest rate was 5*s.* and the lowest 3*s.* The total area in the Hanthawaddy tract under report is, according to the cadastral survey, 202,221·35 acres. The total area recorded in the Thoogyees' (circle officers') register is 172,593·56 acres. The increase thus disclosed is only 17·16 per cent. upon the old areas ; but it must be mentioned that in four (of the nine) circles the cultivated lands were surveyed in 1876 by the old Revenue Settlement Department, and the percentage of error in those old surveys is now shown to be insignificant. On the other hand, in the five circles where the cultivated land has been measured up from year to year by none but the old-fashioned Thoogyees, the under-measurements, as disclosed by the cadastral survey, range from 13 per cent. in the Pagoo circle to 31 and 37 per cent. in Agoon and Kadonebaw.

Bassein settlement tract.

6. In the Bassein district the area dealt with by the Settlement Officer during the year of report is 424·54 square miles, compared with 77 square miles in the previous year.

The Bassein and the Hanthawaddy tracts differ from each other in many important respects. In the one cultivation is fixed and permanent throughout ; in the other there are large areas where the cultivation is shifting and temporary owing to the poverty of the soil. The tracts of these two districts therefore have been dealt with on different principles. The settlement tract of the Bassein dis-

trict has been sub-divided into seven smaller tracts, each differing from the other in the yield and lasting-power of the soil and the facilities for disposal of produce.

For each tract two soil classes have been adopted, the assumed yields varying according to the tract. Thus for I class soils the yield is assumed to be 35 and 40 baskets per acre, for II class soils a uniform average yield of 25 baskets per acre being assumed. The local rates for purposes of assessment vary from £5-10-0 to £6-10-0 per hundred standard baskets. According to the Settlement Officer the cost of living and of cultivation average about £1-10-0 per acre. This is less than the average found for the Hanthawaddy district, where the holdings are larger than at Bassein. The Settlement Officer reports that in the Bassein tract the average area of the paddy holding varies from 20 to 25 acres. The statistics given by the Settlement Officer show that in some portions of the settlement tract the cultivators have suffered grievously from cattle-mortality.

The Settlement Officer's enquiries show that during the year 1879-80 the percentage of mortality throughout the tract now under report was 17·38. Steps are being taken to introduce a system for collecting sound information regarding cattle-mortality. The poorness of the soil, coupled with repeated losses of cattle, are the chief reasons for which the Settlement Officer has proposed a reduction of existing assessments, resulting (if the proposals be approved) in a decrease of revenue amounting to £2,875·41, as shown below :—

Proposed assessments		Expiring assessments		Decrease.
Without cess.	With cess.	Without cess.	With cess.	
£	£	£	£	£
13,914·95	15,306·83	16,529·36	18,182·24	2,875·41

The increase in cultivated area, as shown by the Survey in comparison with the old Revenue Officers' (Thoogyees') returns, on the whole tract is 18·50 per cent.

Tharrawaddy settlement tract.

7. The year of report was the first year of settlement operations in the Tharrawaddy district. Work here did not begin until late in the season, consequently the area brought under settlement is small,—96 square miles only. This comprises nearly the whole of the Thonezeh circle. And here also certain marked features distinguish this tract from the settlement tracts of Hanthawaddy and Bassein. In the Thonezeh circle the cultivator has other occupations besides agriculture. For instance, when his crop has been reaped, he will perhaps take to cutch-manufacture. In the Hanthawaddy and the Bassein districts the cultivator depends for his living solely upon the produce of his land. In the Thonezeh circle the paddy is carefully planted out and the holdings are small. In the Hanthawaddy and Bassein settlement tracts the paddy is sown broadcast and the holdings are large.

The produce of the Tharrawaddy tract is conveyed by boat to Rangoon. The whole tract has been sub divided into two smaller tracts, and the local value of paddy has been assumed to be throughout the tract £5-8-0 per hundred standard baskets. The soil has been classified under two heads, the I class producing 40 baskets and the II class 35 baskets the acre. The assessment rates proposed by the Settlement Officer range from £0-3-0 to £0-4-0 per acre on paddy-land. The increased area as now disclosed is 24 per cent. upon the areas of the Tike Thoogyee's registers. The rice crop in this district is grown on the system of nurseries and transplanted plants, whereas in Hanthawaddy and Bassein it is mostly sown broadcast. The transplanted rice gives larger yields but costs more labour.

The Settlement Officer's proposals, if accepted, would result in a—

Revenue (including 10 per cent. cess) of	4,067
The expiring revenue, including cess, is	3,129
Or an increase of ...	938

or 29 per cent. upon the old demand.

IV.—Supplementary Survey and Registration.

The cadastral survey having prepared maps of the kwins, the settlement of land revenue followed, being based upon information collected and recorded by the Settlement Officer, whose maps and registers represent the fiscal aspect of the kwin at the close of the year of settlement. But year by year changes occur, cultivation extends, holdings are enlarged or contracted, new holdings spring up, fields are sold. "These changes more or less alter the distribution of land, "and therefore the assessment on individuals. In order then to secure an equi-"table yearly assessment, all changes which occur must be carefully recorded in "such form as to permit of the rapid adjustment of the new revenue demand on "the altered holdings." In other words, if the work of the cadastral survey is to endure, it must be annually supplemented by a specially qualified agency. The Thoogyees, or headmen of circles, and their assistants, the Myaydaing Thoogyees, constitute this agency. Their work is checked by Inspectors, and all the operations are overlooked by a Superintendent.

Hanthawaddy district.

8. In the Hanthawaddy district supplementary survey operations extended over the six (now eight) circles brought under settlement last year. Owing to great delay in the receipt of maps from Calcutta, field-work did not begin until the season was well advanced; this delayed the preparation of the revenue-rolls and the collection of the land revenue, but it is hoped that similar delay will not recur. The assessed area was 194,798·81 acres, being an increase of 4,457·45 acres over the cadastral measurements of the previous season. In some circles cultivation has reached its limits; in other circles cultivation is extending rapidly. At the sanctioned rates of assessment the revenue demand was £53,299, but, for reasons noticed below, a reduction of 20 per cent. was ordered by the Chief Commissioner, and this reduced the demand to £42,639, yielding an increase of £3,3[illegible] over the demand for the previous year, or a percentage of increase of 8·4.

The actual cost of supplementary survey and registration is borne by the Tike Thoogyees, and the amount thus paid by the Thoogyees of the eight circles was £540. The average area of paddy-land held by individual cultivators is reported to be 47·77 acres.

The total number of tenants (excluding tenants in what are called grant kwins) is 598, and the average area of the land held by each tenant is said to be 32 acres. The tenant invariably pays the Government revenue, and the incidence of the tenant rent per acre is usually nearly double the incidence of the Government rate per acre in the same kwin.

Bassein district.

9. In the Bassein district supplementary survey operations were conducted in settlement tract of last year, namely, the circles Athehgyee, Zaygyoung, and Kyoukchounggyee.

The staff consisted of one Superintendent, one Inspector, and two Myaydaing Thoogyees, but some help had to be obtained from the Settlement Office. Some difficulties arose in getting the staff into working order, but most of the field-work was over by the 23rd March. The total area of land assessed to revenue is 23,850·14 acres.

The total revenue due on this was	4,446·78
Deduct remissions	322·17
Net land revenue	4,124·61
Ten per cent. cess	412·36
Total demand ...	4,536·97

The actual increase upon the demand for the previous year is reported to be £255. The average area of land held by individual cultivators is reported to

be 21 acres; the average area of rice-land thus held is 24 acres. The number of tenants is 75, and all but four were of less than one year's occupancy, and most of the tenants came from Upper Burma within the last year or two. A little more than 5 per cent. of the whole assessed area is in tenant occupancy, the average area of land occupied by each tenant being 17 acres. Here also the tenant invariably pays the Government revenue; many of the tenants hire cattle from their landlords, paying a lump sum for land and cattle. Excluding the estimated payments for hire of cattle, the incidence of the actual rent to landlord and of the revenue to Government is per acre as follows:—

Circle.	Rent to landlord and revenue to Government paid by tenant: incidence per acre.		Incidence of the Government revenue per acre on the same land.	
	s.	d.	s.	d.
Athelgyee	6	0½	3	5½
Zaygyoung	6	4½	3	10
Kyoukchounggyee	9	3½	4	6¾

The highest Government rate is now 6*s.* per acre.

The cost of supplementary survey and registration paid by the Tike Thoogyees is shown below:—

Circle.	Total commission from all sources.	Total paid by Tike Thoogyee for supplementary survey, &c.
	£	£
Athelgyee and Zaygyoung	145	42
Kyoukchounggyee	194	52
Total ...	...	94

By recent orders Tike Thoogyees are not to be burdened with the pay of Myaydaing Thoogyees, or assistants, who may be employed at the district office during the recess. Office contingencies (supplementary survey office) also are to be henceforth charged to Government and not to the Tike Thoogyees.

The various charges hitherto payable by the Tike Thoogyees for supplementary survey and registration will thus be materially reduced.

Grazing-grounds.

10. Much good work has been done in the three circles (Bassein) in the matter of allotting grazing-grounds. A total area of 3,732 acres has been so allotted, or an average of 50 acres of grazing-ground for each square mile of country. Attention has been given to this subject in the Hanthawaddy tract also, but no special report about grazing-grounds for that tract has been received.

Assessments of 1879-80, their working, and alteration.

In 1879-80 settlement operations were carried out in the districts of Hanthawaddy and Bassein. The total area thus brought under cultivation in Hanthawaddy was 432 square miles, comprising a great part of the Syriam township. Almost the whole of this area is under paddy cultivation. In 1878-79 the rates on paddy-land ranged from 2*s.* to 4*s.* 6*d.* per acre, except in one kwin, where a rate of 5*s.* per acre was in force. In the early part of 1879-80 a sum-

mary enhancement of 25 per cent. was ordered to be made upon the land assessments of several districts, including Hanthawaddy, and the rates of the settlement tracts then ranged from 1*s.* 6*d.* to 5*s.* 7½*d.* per acre, with the exception of the kwin (Polone kwin, Hmawwoon circle) above noted, where the rate was enhanced from 5*s.* to 6*s.* 3*d.* These enhancements were accepted by the people, and the land revenue was, as usual, collected without difficulty. In 1879-80 the settlement following upon cadastral survey was completed in six (now eight) circles of the Syriam township of the Hanthawaddy district, and the new assessments based upon the survey and the settlement operations took effect in the spring of 1881. The cadastral survey had disclosed an increase in area of nearly 24 per cent. upon the old areas as returned by the Tike Thoogyees, and in one or two circles the increase in area was as much as 30 and 33 per cent.; there was also a general enhancement of the rates, especially upon I class soils. The new rates were these—

Tract I.

	s.	d.
Soil I	7	0
„ II	4	9
„ III	2	6
„ IV	1	6

Tract II.

Soil I	6	6
„ II	4	6
„ III	2	0
„ IV	1	6

In addition to these rates, the former cess of five per cent. was doubled under the Rural Police and Cess Act. Further, during a part of the selling season, the local price of paddy fell 13 per cent. below the minimum tract rates adopted by the Settlement Officer. These circumstances following rapidly upon each other, coupled with the system of soil classification, which was a novelty in Burma, alarmed the cultivators, who thereupon petitioned in large numbers, pointing out what they considered wrong soil classification and excessive measurements. There could be no doubt but that the survey areas were correct. The survey was conducted on the best known methods, and the work was afterwards subjected to independent tests, which nowhere disclosed errors of over 1 per cent. Further enquiry however justified the belief that the soil classification (of 1880) in Syriam was too minute, and it seems possible that in some cases lands may have been unduly rated as I class soils. These facts, together with others already cited, caused some presure upon the cultivators, and in order to relieve this pressure at once, the Chief Commissioner, on the 18th May 1881, sanctioned a deduction throughout the Syriam settlement tract of 20 per cent. in the land revenue demand for the current year (1880-81); and the chief grounds upon which this concession was made were—

(1) that notice of the enhanced rates reached the cultivators somewhat late in the season; and

(2) that the price of paddy, for a part of the selling season, touched a price 13 per cent. below the minimum rates adopted by the Settlement Officer.

The highest revenue adopted by the Settlement Officers in the 1881 assessments of Hanthawaddy and Bassein is 6*s.* per acre, yet the productive power of the soils has been found, by a great number of carefully-conducted crop-cutting experiments, to average about as high as was estimated for the assessments of 1881. In the Tharrawaddy district the highest rate of assessment has been taken by the Settlement Officer at 4*s.* 6*d.* per acre. The main items of difference between the cost of cultivation as computed last year and as taken this year are two. First, the cost of plough-cattle. Careful enquiries have shown that the yearly mortality among cattle is about 22 per cent. instead of 17 per cent. as estimated last year. Secondly, the highest average local price of paddy has been taken for the purposes of assessment in Hanthawaddy at £6-10-0 per 100 baskets, as compared with £7-10-0 last year; in Bassein the highest average, £6-10-0 (per 100 baskets), is the same as last year.

The two Settlement Officers, after the further experience and enquiries of the past year, recommend that the revenue rates fixed in 1880 for I class land, namely, .7*s.* per acre in Hanthawaddy, 6*s.* 6*d.* in Bassein, be reduced to 6*s.* per acre. The Commissioner of the Irrawaddy division supports the Bassein Settlement Officer's proposals for a reduction of the I class rate in Bassein.

It may here be noted that, although there was some agitation amongst the Bassein cultivators similar in nature to the agitation which arose in Syriam, the Bassein protests were confined simply to the presentation of a few petitions. And there appeared to be no necessity for extending the 20 per cent. concession to the Bassein tract. The effect of this concession was that, instead of realizing a land revenue of £53,299 as had been expected, the demand was reduced to £42,639. But steps have been taken, permanently, to remove whatever cause there may have been for dissatisfaction on the part of the cultivators. Since the new settlement and during the year of assessment the price of paddy has fallen considerably. Prices throughout the delta districts are ruled entirely by the export price at Rangoon. The following abstract of prices-current furnished by the Rangoon Chamber of Commerce shows what the fall has been :—

Rangoon quotations per 100 baskets of paddy.

Year.	Mean of the monthly average prices.	Highest average price ruling through any month.	Lowest average price ruling through any month.
	£		
1878	11	£ 13 in April	£ 9 in December
1879	10	,, 11 Sept. to Dec.	,, 8 in April
1880	10	,, 10 in July	,, 9 in do.
1881 (10 months)	8	,, 9 in February	,, 7 in do.

The mean average price for ten months of 1881 has thus been 19 per cent. below the mean average for 1880 and 23 per cent. below the mean average for 1879.

It may be useful here to record concisely the results of the assessments made in 1880 for six (now eight) circles of the Hanthawaddy district and three circles of the Bassein district :—

	Hanthawaddy.	Bassein.	Total.
	s. d.	*s. d.*	
Highest rate of land revenue per acre previous to the settlement	5 7½	5 0	
Highest rate per acre adopted at the settlement	7 0	6 6	
Average revenue rate over the whole area previous to the settlement... ...	4·01	4·06	
Average revenue rate over the whole area according to the new assessments ...	2·75	2·05	
	Acres.	Acres.	Acres.
Total cultivated area according to the Thooyees' measurements	154,484	16,200	170,684
Total cultivated area according to the cadastral survey	11,447	20,693	212,140
	£	£	£
Total land revenue previous to the settlement	39,130	3,341	42,471
Total land revenue according to the new assessments	52,896	4,245	57,141
Increase of land revenue at the new settlement	13,766	903	14,669
Proportion of increased revenue due to the more correct measurement of areas and not to any enhancement of assessment rates	7	10	

Looking then to the fall in the price of paddy (unhusked rice) and to the great increase made in the revenue demand in the Hanthawaddy and Bassein settlement tracts during the last two years, and looking also to the doubt about the accuracy of some of the classifications of I class soil in 1880 (there are only two soil classes in the settlement tracts of 1881), the Chief Commissioner considered that some reduction might properly be made in the I class rates.

There is no reason to suppose that the rates on the other classes of soil as fixed in 1880 are excessive. Orders have therefore issued that the I class rates of 7*s.* and 6*s.* 6*d.* wherever existing in the circles settled last year be reduced to 6*s.* per acre; the revenue rates on other than I class soils as determined at the settlement to hold good.

The reduction of revenue caused by these orders will be, approximately, £2,100 in Hanthawaddy and £100 in Bassein. The increase of revenue caused by the new settlement will thus be reduced from £14,669 to £12,469, or 29 per cent. on the total revenue under revision. This increase, added to the summary enhancement of 25 per cent. in 1879 and the 5 per cent. police cess imposed in 1880, makes a total enhancement of 54 per cent. in the two years. This is a large increase of assessment to be imposed over a considerable area, and much consideration has been given to the question whether the enhanced revenue can be paid without checking the prosperity of the people and the progress of the country. But there are many weighty facts which show that the revised assessments can be paid without impairing the general prosperity.

In the first place, the main basis on which the revised assessments rests is the estimated yearly produce of an acre of rice-land. The average yield of the tracts under settlement, which include some of the very best rice-lands in Burma, has been taken at 30 baskets per acre. Yet the figures of the export rice trade and actual needs of the people for food, for seed-grain, and for food of animals* show that the average yield of the rice-land of Burma cannot be less than 32·24 baskets, or bushels, of paddy per acre. Some of the toungya rice-lands probably yield less than this average; and the presumption is that the best rice-lands of the province, such as those recently under assessment, yield more than this average. English and Burman merchants who have gone into the subject usually say that the average yield of good rice-lands in Burma ranges from 40 to 50 bushels per acre. The somewhat meagre experiments made by revenue officers in Pegu, Tenasserim, and Arakan between the years 1865 and 1878 all point to an average yield of over 35 baskets per acre. Under these circumstances the average yield of 30 bushels per acre, as taken by the Settlement Department, would seem to be well within the truth.

	Bushels or baskets of paddy, weighing 50lbs. each.
* The trade returns for the year 1880-81 show an export of—	
White rice, 147,000 tons—5,065,846 baskets of white rice, or ...	10,131,692
Cargo rice, 734,895 tons ...	44,490,924
Paddy, 10,405 tons	466,144
A population of 3,736,771 persons in British Burma require for food, at an average rate of 400lbs. of rice per annum, a total supply of ...	45,991,020
Seed-corn for 3,300,000 acres of rice-land, at an average of one bushel per acre, comes to	3,300,000
The smallest quantity of paddy that can be allowed for the consumption of plough-cattle (400,000 pairs, at 5lbs. daily per pair for two months) is	2,374,400
Total ...	106,754,180

This total allows nothing for waste and nothing for storage or hoarding. The latest returns of cultivated land show 3,089,213 acres of rice-land, besides 122,635 acres of toungya, on which rice is grown with other crops. It is believed that this area is below the truth, and that the true area of rice-land is not less than 3,300,000 acres. If this be so, then the total of paddy produced as above gives an average yield of not less than 32·34 bushels per acre.

The agricultural communities of Burma, besides producing food for themselves and their fellow-countrymen, send away to other countries more than one-half of the total yield of the land. For this exported surplus they get a very good price; they have no landlord class to satisfy; they enjoy a standard of comfort or pleasure very far above that of their fellow-subjects in India; and every family in Burma, where wealth is widely distributed, and there are few very rich men, spends on the average £12 a year on imported luxuries and on gold or silver ornaments.

Further, the land revenue is paid without any difficulty and was collected in the year 1881, in the case of 199 landholders out of 200, without the issue of any coercive process whatever. Since the recent enhancement of the land revenue rates the extensions of cultivation and the applications for new land have been as numerous as before in those kwins where waste-land is available.

The land revenue at the revised rates comes to about one-ninth of the value of the gross produce of the land and to something less than one-half of the surplus profit after liberal allowance has been made for the direct and indirect costs of cultivation and for the maintenance of the cultivator's family. The proportion of land sub-let to tenants is very small in Burma. In the tracts recently settled, only 673 such sub-tenants were found.* During 1880-81 the rents paid by these tenants to the landholders average 11*s.* 1½*d.* per acre, or more than double the average revenue rate of the new settlement.

* Hanthawaddy	...	598
Bassein ...	...	75
Total	...	673

Fallow Rates.

The amount of land classed as fallow is very small. In 1880-81 it was only 70,562 acres, or 2·28 per cent. of the area under paddy-cultivation throughout the province. Up till the issue of the rules under the Burma Land and Revenue Act, 1879, a rule had been in force (since 1865), permitting a cultivator to retain his claim on any part of his holding which he might leave fallow, provided he paid thereon a fallow rate of two annas per acre. The rules of 1879 did not re-enact the old rule about fallow rates. But Rule 93 of those rules permitted the Commissioner to grant remission of assessment "if any person was unable to "cultivate his land or any part of it in consequence of any good and sufficient "cause beyond his control."

The revenue returns of past years show that the area of land paying fallow rates in any year was very small, seldom, if ever, exceeding 10 per cent. upon the whole assessed area and generally much below 10 per cent. Land has usually been left fallow not in order to allow it to recover fertility, but because the cultivators have been, for some reason, unable to cultivate all their lands. There are, however, certain localities,—for instance, portions of the Bassein district,—where the soil is so poor that fields must be left fallow after a few years' continuous cultivation. But, ordinarily, the reasons which induce a cultivator to leave his holding uncultivated, but paying fallow rate, are want of cattle, sickness, or a wish to take up virgin land elsewhere. Previous to the introduction of the fallow rate, there was much dispute among cultivators about the ownership of uncultivated land; the two-anna rate was therefore fixed in order to preserve for the cultivator his right of possession. He was thus enabled by means of a trifling tax to retain a lien on his old and partly exhausted holding, whilst he went off to clear forest and extend cultivation elsewhere. This was an advantage both to himself and to the State, and will continue to be an advantage so long as vast areas of virgin soil remain for cultivation. The "Directions to Settlement Officers" (sections 138-142), whilst retaining the principle of a fallow rate, disallowed a special and separate rating on fallow-land; but it was laid down that the Settlement Officer, when proposing his assessment rates, should allow a drawback for fallow-land not exceeding 10 per cent. upon the area actually under cultivation. The Settlement Officers (Hanthawaddy and Bassein) report that this allowance has not hitherto been made (in the settlement tracts) because the custom of leaving land fallow to recover itself did not exist. In the spring of 1881 petitions were received from landholders in the recently settled tracts of the Hanthawaddy district, praying that they might be allowed to pay fallow rates on parts of their holdings, and inquiry into the circumstances of the petitioners has led to a re-consideration of the fallow-rate question. The people have become accustomed to a special and distinct rate on land left uncultivated, that is to say, on fallow-land, using the word in its broadest sense; and, for reasons set forth in a recent Resolution,† the Chief Commissioner has thought it best for the country, for the people, and the public revenue that the fallow rate be retained. It has accordingly been recommended that a fallow rate be allowed of two annas per acre on any part of a holding left uncultivated up to one-fourth of the total area of the holding, provided that the Deputy Commissioner may, for reasonable cause, permit any part or the whole of a

† Revenue Department, No. 497-391L., dated 21st November 1881, and forwarded to Secretary to Government of India, Revenue and Agriculture Department, with letter, Revenue Department, No. 498L. (Land Revenue and Remissions), dated 23rd November 1881.

holding to pay fallow rates, it being also further provided that in any village (kwin) not more than one-fourth of the cultivated land of such village (kwin) shall be allowed to pay fallow rates in any one year.

Land Revenue Remissions.

The land revenue remissions for 1880-81 throughout the province were £6,083, compared with £14,631 in the previous year. Previous to the year 1879 the principle under which remissions of land revenue were granted was that the cultivator should receive such remission in proportion to the amount of loss to his crop, and irrespective of his power to make good the loss from other property or from the surplus yield of previous years. The rules issued in February 1879 under the Burma Land and Revenue Act did not provide for granting remissions in proportion to the loss of crop. Rules 93—95 directed the officer who visited the injured or destroyed crops in each case to report "the extent to which he "considered relief should be granted," and gave the Commissioner discretion, subject to the orders of the Chief Commissioner, in certain cases to "grant such "remission * * * as he might think reasonable under the circumstances." Subsequent orders directed that in cases of application for remission the ability of the landholder to pay and the large profits he had made in other years should be considered. Care was enjoined to prevent the revenue demand pressing hardly on the cultivator; but it was held "not to be a matter of course that cultivators "whose crops might be more or less injured should obtain remission." Since 1878 the orders of the local Government on remission proposals have not adopted the principle of making remissions proportionate to the loss of crop. In December 1880 Colonel Duff, the Commissioner of the Tenasserim division, pointed out that the new departure in the matter of remissions might adversely affect the prosperity of the landholders and the progress of the country. Shortly afterwards the Government of India remarked upon the alteration that had taken place in the old system of granting remissions of land revenue in Burma, and directed that the matter should be again fully considered from the cultivator's, as well as from the public treasury, point of view. The principal revenue officers were accordingly invited to report upon the question, and the reports show that there is a difference of opinion amongst these officers. Some advocate a return to the old system, whilst others are in favour of the new, but the Chief Commissioner considers that the preponderance of opinion is in favour of a return to the system of granting remission in proportion to the injury or destruction suffered, and is against the new plan of considering a cultivator's past profits as a set-off against his losses in any one year. It seems certain that the cultivators themselves would prefer the old system; it is one to which they have been accustomed since we first occupied the country, and which they themselves observe when a tenant asks his landlord for remission of rent because of damage to or destruction of his crops. On the whole, therefore, the Chief Commissioner considers that the revenue practice of Burma had better revert to the old plan of granting remissions proportionate to the injury done on any land or holding in any year, subject to the proviso that in ordinary cases no remission shall be given, unless the yield falls below two-thirds of an ordinary crop. Orders have accordingly been issued subject to the approval of the Government of India, to whom the question has been referred.

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III.—PROTECTION.

Legislating Authority.

[*Vide* Report for 1872-73, page 26.

Course of Legislature.

General.

11. During the year 1880-81 the following Acts, of more or less general application, were passed by the Legislative Council of the Government of India:—

1880.

VIII.—An Act to correct a clerical error in the Indian Limitation Act, 1877.
XIII.—The Vaccination Act.
XIV.—The Indian Census Act.

1881.

III.—The Indian Securities Act.
V.—The Probate and Administration Act.
VI.—The District Delegates Act.
VIII.—The Petroleum Act.
IX.—The Administrator-General's Act.
X.—The Coroners Act.
XI.—The Municipal Taxation Act.
XV.—The Indian Factories Act.
XVI.—The Obstruction in Fairways Act.

Local.

12. The Acts which related exclusively to British Burma were Act XI of 1880 (the Burma Courts Act) and Act II of 1881 (the Pegu and Sittang Canal Act). The object of the Burma Courts Act, 1881, was to provide for the temporary appointment from time to time of an Additional Recorder to assist the Recorder of Rangoon, and also at the same time to remove certain doubts which existed as to the jurisdiction of the Recorder of Rangoon under section 52 of the Burma Courts Act, 1875. The Pegu and Sittang Canal Act provides for the navigation, protection, and maintenance of the canal from which it takes its name. Of the Bills submitted to the Government of India in the year 1879-80, the Burma Forest Bill has now become law. The Burma Pilots Bill was returned to the local Government with certain criticisms and suggestions, and has since been re-submitted to the Government of India. During the year of report the Currency Act Amendment Bill and the Burma Excise Bill were submitted. The former, which provides for the establishment of a paper currency circle for the issue of currency notes in Burma, has not yet received the assent of the Governor-General. The latter has been merged in the Excise Act 1881, which has recently been passed.

Police.

Strength of police force.

13. The sanctioned strength of the police remained practically unaltered during the year, and comprised 7,371 men of all ranks. In some districts, notably in Shwaygyin, Thonegwa, and Hanthawaddy, it was found difficult to keep the police up to the sanctioned strength. In districts where other employment is comparatively scanty, such as Tavoy, Kyoukpyoo, and Toungoo, good recruits were always available. Notwithstanding that a general increase of wages to the lower grades of constables was sanctioned in the year 1879, at a cost of about one-and-a-half lakhs of rupees, still 2,196 men, or more than 29 per cent. of the whole force, and almost as many as in the previous year, resigned or were discharged during the year. Of this number, only 12 had served for pension and only 50 had earned gratuity. From several districts it was reported that the increase in wages had done little towards making employment in the police popular with the respectable classes. Resignations occurred mainly among constables of the lowest grade on wages of £1-4-0 a month, while constables of the highest class, on £1-10-0 a month, usually are satisfied with their appointments. The instability of the Burman character may account for a part of the resignations. But no police force can be really efficient which annually loses 30 per cent. of its members, hardly any of whom earn pension or gratuity. It has been decided to improve the position of the police by providing them gradually with quarters near the station-houses at the public expense. It is however impossible for the local Government to accept further large additions to the cost of the police; and any increase to the wages of policemen must be met by a corresponding reduction in the existing numbers of the force. When the rural police is re-organised and in full working order, and when the postal duties at present performed by the police are reduced, perhaps some reduction of numbers may be possible, and the wages of the lowest grade of constable can be raised. In the delta districts £1-4-0 a month is less than farm-servants, mill-hands, wharf-coolies, and ordinary labourers earn during the greater part of the year.

Conduct of police.

14. The punishments awarded to members of the police force have been somewhat fewer than in former years, thus—

	1878.	1879.	1880
Dismissals of officers and men	508	544	391
Number of officers and men fined or otherwise punished departmentally	1,918	1,670	1,358
Ditto ditto punished judicially by Magistrates ...	245	197	203
Total	2,671	2,411	1,952

As far as it goes, the reduction in the number of punishments is a satisfactory feature. The returns of rewards to policemen show that every year about 200 men are rewarded. During the past year attention has been drawn to the relations between the police and the people, the conduct of constables towards villagers, and the aid given by villagers to the police. Cases have come up wherein the police have behaved badly to the people, and wherein the people have persistently withheld aid and information from the police.

Village police.

15. Now that the police cess has been actually collected, the re-organisation of the rural police is being carried out. There are wide differences between the funds available in a rich district like Hanthawaddy and in a poor district like Thayetmyo or Mergui, and therefore the rural police can hardly be put on the same footing everywhere. In the richer districts the village headman will be placed on a good footing, and ought gradually to grow into a useful and influential rural notable. Even in the poorer districts the headmen of the larger villages will be made much more useful and effective than they have hitherto been, provided too much of the available funds is not spent on the *Goungs* or headmen of circles. Continuous care will be taken by the District Magistrate and the police officer to attract respectable local people to the rural police offices, to keep these offices in the hands of such men, to train them gradually to the performance of their duties, and to avoid

punishing them harshly. The circle and village headmen must not be allowed to drift out of their position as representative and influential villagers into the status of petty officials, apart from the people, and merely subsidiary to the regular police.

Instruction of the police.

16. Attention continues to be paid to instructing constables in the codes and in their duty. In some districts men are brought into the head-quarters school; in others selected sergeants go round to station-houses as instructors; in others some teaching is done by the senior men at each post. Local circumstances vary, and there is no reason why each of these systems should not produce good effects, so long as European officers and Inspectors enquire into the results of the teaching, test the men's knowledge, and show that a good acquaintance with police duties qualifies for early promotion. In some districts more attention is required to the instruction of the men in musketry; 6,061 of the police are armed with muskets, and ought to learn how to use them. In more than one case during the year, on the Thayetmyo and Toungoo border, the police fired on bands of armed dacoits without any effect.

General statistics of crime.

17. The principal statistics relating to crimes cognizable by the police have not varied greatly during the past four years, thus—

	1877.	1878.	1879.	1880.
Total number of cognizable cases reported to have been committed	20,746	20,147	18,782	18,898
Number of cases in which investigation was held...	20,997	20,150	19,103	19,250
Ditto taken into Court	15,493	15,046	14,056	14,279
Ditto in which conviction was obtained	12,152	11,903	11,187	11,580
	£	£	£	£
Value of property stolen	53,597	60,835	53,859	50,634
Ditto recovered	18,378	21,715	16,849	19,437

The total of reported cases for the past year was thus higher by 116 cases than in the preceding year, the number of prosecutions under the nuisance laws having been 239 higher than in the previous year. The proportion of cases in which conviction was obtained is higher than in any of the preceding years. The value of stolen property is lower; and the proportion of property recovered is considerably higher than in any previous year.

Increase of violent crime.

18. Although the gross figures as extracted above are fairly satisfactory, the returns and the results of police action in the case of some of the more heinous crimes compare, more especially in certain districts, unfavourably with the figures for 1879. For some of these offences the people of Burma have long had an undesirable celebrity. Police action cannot be expected greatly or suddenly to repress such offences as murder or grievous hurt, which are to some extent the outcome of the national characteristics of the Burmese. But the police can bring the perpetrators of such crimes to justice; and they can do much to repress and prevent the occurrence of dacoities and robberies. The statistics of these violent crimes are as follows:—

		Number of cases		
		Reported.	Taken into Court.	In which conviction was obtained.
Murder and attempt at murder.	1879	117	82	55
	1880	116	75	60
Culpable homicide..	1879	15	14	8
	1880	37	34	24
Grievous hurt	1879	120	108	87
	1880	130	119	95
Dacoity	1879	28	28	23
	1880	47	33	25
Robbery	1879	103	67	54
	1880	129	84	51

Murders by robbers and dacoits were 18, as against 17 last year; in four cases offenders were brought to justice, as against seven cases in the year 1879. In the Pegu and Arakan divisions the police were more successful than usual in detect-

ing murderers. In the Amherst district of Tenasserim the results were bad; the number of murders increased from 6 last year to 17 in 1880; and in three cases only out of the 17 were offenders convicted. In culpable homicide cases the percentage of convictions was fairly good; as also in cases of grievous hurt. The great increase in dacoities, which had risen from 33 to 48, and the reduced proportion of convictions, which fell from 64 to 48 per cent., are very serious blots on the police administration of the year. Thirteen of these dacoities occurred on the Thayetmyo border, and were in part due to political disturbance. Arrangements have been made, by posting additional Police Inspectors, by strengthening police posts, by arming villagers, and by stockading the more exposed frontier villages, to resist and keep off dacoits and robbers, who had matters too much their own way last year. In the frontier district of Toungoo there were 10 cases of robbery, not one of which was prosecuted to conviction; while in the frontier district of Thayetmyo offenders were brought to justice in only one case out of 13 dacoities, and in only two cases out of 15 robberies. In Henzada, where no conviction was obtained in either of the dacoity cases, only one robbery out of 15 was prosecuted to conviction. Stringent measures are being taken to bring the Henzada police up to their duty. Bassein still shows a large number of dacoities and robberies; but in this district detection was satisfactorily effected. The important districts of Hanthawaddy and Tharrawaddy, where dacoity and robbery used to be rife, show comparatively clear calendars; and the detection was good in both these districts, as well as in Akyab, where the police were decidedly successful. There were several satisfactory cases in which the villagers themselves or individual house-owners beat off robbers and dacoits. Though several notable outlaws were captured and convicted during the year, there are still outlaws at large, such as Nga Thaing of Kyoukpyoo, Paw Din of Shwaygyin, and Nga Lone of Thayetmyo district, who may again become leaders of robber-gangs at short notice. Some few of the robber-leaders, who have given much trouble in British territory, are now imprisoned in Upper Burma or Siam.

Decrease in thefts.

19. There has been a satisfactory decrease in the number of thefts reported, while the proportion of convictions has improved, thus:—

		Number of cases		
		Reported.	Taken into Court.	In which conviction was obtained.
Cattle-theft ...	1879 ...	741	261	196
	1880 ...	670	278	198
Theft ...	1879 ...	7,920	4,378	3,274
	1880 ...	7,643	4,213	3,249
Receiving stolen property	1879 ...	516	525	384
	1880 ...	412	416	351

Prosecutions for bad livelihood.

20. The prosecutions and convictions for vagrancy and bad livelihood have been—

	Prosecutions.	Convictions.
1877	1,117	761
1878	648	425
1879	547	365
1880	581	401

In most districts the Magistrates are now careful to prevent improper resort to these sections of the law. But care is still required to prevent the police from straining the law against suspected persons. The vagrancy law when properly worked may be of great value to the public, but if strained, or carelessly administered, it may prove a source of hardship and an engine of oppression. It is not desirable to see the number of prosecutions for bad livelihood increased, unless the Magistrates can really try the offenders at or near their homes.

Offences under the Gambling Act and excise laws.

21. Activity against offenders under the Gambling Act and under the excise laws has not varied much of late years, thus:—

	Gambling Act.		Excise laws.	
	Prosecutions.	Convictions.	Prosecutions.	Convictions.
1877	665	560	1,314	1,085
1878	594	504	1,379	1,112
1879	597	505	1,304	1,081
1880	621	526	1,408	1,184

Police reports teem with statements that gambling assumes the form of a national vice among Burmans; and the elders of the people (Loogyees) undoubtedly disapprove of both gambling and drunkenness. But the Judicial Commissioner has recently pointed out that the law does not forbid a few friends to throw a main in a private place; and it is desirable that the police should not be led by hope of large money rewards to give undue attention to the repression of gambling or to strain the law against gamblers. Public or other lotteries, which demoralise the people wholesale, must of course be repressed as by law provided. Now that opium shops have been reduced in number from 68 to 27 for the whole province, increased vigilance against illicit dealings in opium will be needed.

Offences not cognizable by police.

22. The number of cases of offences not cognizable by the police, in which police aid has been sought, continues to increase; it was 791 in the year 1878, 807 in 1879, and 894 in the past year. Seventy-four per cent. of the persons summoned or arrested in these cases were convicted; and 50 per cent. of the property lost in these cases was recovered.

Accidental and violent deaths.

23. The returns of accidental and violent deaths for the past two years are as follows:—

	1879.		1880.	
	Males.	Females.	Males.	Females.
Suicides	66	33	65	45
Persons drowned	264	117	238	132
Persons killed by snakes	104	22	68	25
Ditto by wild animals, alligators, sharks, &c. ...	25	5	16	2
Ditto by fall from a tree	64	4	52	7
Ditto by domestic cattle	28	3	12	0
Ditto by other causes	117	31	99	39
Total ...	568	215	550	240

Criminal Justice.

Constitution of the Courts.

24. The constitution of the criminal Courts of the province remained unchanged during the year, save that in Rangoon town an Additional Recorder was appointed for a few weeks to try certain cases which, for special reasons, the Recorder himself was unable to try. Mr. Wilkinson held the office of Recorder and Mr. Crosthwaite that of Judicial Commissioner during the whole of the year 1880.

Work of the Special Court.

25. Before the Special Court there came during the year 45 appeals and 11 references. In one case the Special Court changed a sentence of death into a sentence of transportation for life. In one case the two Judges of the Special Court did not agree, and so the case was referred to the High Court at Calcutta. In all the other cases the Special Court upheld the finding of the Court below. Out of the 56 cases, 32 arose because the Judicial Commissioner was temporarily discharging the duties of Sessions Judge. Henceforward the Judicial Commissioner will be able to give his whole time to his duties as a High Court; and no appeals or references under section 287 of the Code will lie to the Special Court.

Recorder's Court.

26. Sixty-eight sessions cases were tried by the Recorder, as compared with 56 in the preceding year and with 69 in 1878. Six cases were pending at the close of the year. Sixty-two appeals came before the Recorder during the year, of which one was pending on the 31st December. Eighteen cases from the Assistant Magistrate's Court were called for and examined by the Recorder.

Rangoon Magistrate's Court.

27. The number of reported offences in Rangoon town rose from 2,656 in the preceding year to 3,972 in the year 1880. In the year 1878 the number was 3,453. The increase last year was mainly under various petty offences. The proportion of convictions to persons arraigned in non-bailable cases, that is, in the case of serious offences, was 75 per cent., as against 70 per cent. in the preceding year. The average of the fines imposed by the Rangoon Magistrates was about 18*s*., and 74 per cent. of the fines inflicted were realized. This is satisfactory as showing that the fines were not unduly heavy.

Judicial Commissioner's Court.

28. Besides trying 79 persons as a Court of Session, the Judicial Commissioner heard 287 appeals, as compared with 200 in the preceding year. He considered 1,320 cases sitting as a Court of superintendence and revision. In the 1,607 cases that thus came before him, the Judicial Commissioner reduced the sentences in 51 cases, enhanced them in 32 cases, reversed the conviction in 307 cases, and left 1,217 cases untouched. The proportion of cases with which the Judicial Commissioner had thus to interfere was 24 per cent.; in the year 1879 the proportion was 31 per cent.; and in 1878 it was 50 per cent. The Judicial Commissioner has visited and inspected as many of the subordinate Courts as the pressure of other duties permitted. In the present condition of local Courts and local Magistrates in Burma, and while there is comparatively so little appealing, the inspection and revision work performed by the Judicial Commissioner is of the utmost use in bringing the subordinates in the interior up to a higher standard of efficiency. It is satisfactory that the Judicial Commissioner is able to report that the administration of justice is improving. But there is still room for more improvement in the judicial education of our Magistrates, in the control and supervision of their work, in the magisterial direction of police operations, and in such minor matters as the provision of translations of the Acts and laws which every Burman Magistrate has to administer. To all these affairs the Judicial Commissioner is giving attention, the results of which are gradually becoming apparent.

Sessions Courts.

29. The numbers of cases and persons brought before the Courts of Session were 155 and 362 respectively, as compared with 128 and 289 in the preceding year. Only 14 persons remained under trial at the close of the year. The proportion of convictions was 59 per cent., which compares unfavourably with the proportion, 72 per cent., attained in the previous year. In 1878 the proportion of convictions before Sessions Courts had been 59 per cent.

Five hundred and ninety-seven persons appealed from the sentences of first class Magistrates to the Sessions Judge. In 170 cases, or 28 per cent. of the appeals, the sentences were reduced or reversed. Only 10 appeals to the Sessions Courts were pending at the end of the year.

Courts of Chief Magistrates of districts.

30. The Chief Magistrates of districts held trials of 5,858 persons, of whom 4,055, or 69 per cent., were convicted or committed and 36 were under trial at the end of the year. It is very desirable that a certain number of original criminal cases should be tried by the Chief Magistrates of districts over and above the cases they may take up under section 36 of the Code, though the number of such trials must vary with the pressure of other work on the Magistrates. The number of persons tried by Chief Magistrates in 1880 was 51 per cent. higher than in the preceding year. The number of persons who appealed to the District Magistrates was 517, as against 630 in the previous year. In the cases of 278 persons, or 54 per cent. of the appellants, the sentences of the lower Courts were modified or reversed.

Other magisterial Courts in the interior.

31. Before the Subordinate Magistracy 26,574 persons came for trial, of whom 16,246, or 61 per cent., were convicted. The average duration of trials in all magisterial Courts was 4·33 days, which is moderate: 228 persons were pending trial before the Subordinate Magistracy at the close of the year; so it would appear that the public are not harassed by undue prolongation of criminal trials.

Sentences of imprisonment.

32. There were 6,246 persons sentenced during the year to imprisonment, of whom all but 207 were punished with rigorous imprisonment. Consequent on the instructions and precedents given by the higher Courts, there has been some increase in the number of sentences for long terms, thus :—

	Sentences to imprisonment for terms of				Total number of sentences of imprisonment.	Sentences of	
	Six months and under.	Six months to two years.	Two years to seven years.	Above seven years.		Transportation.	Death.
1877 ...	5,069	1,409	311	11	6,800	53	32
1878 ...	5,050	1,276	387	14	6,727	96	35
1879 ...	4,144	1,291	350	16	6,101	64	37
1880 ...	4,511	1,286	386	36	6,249	59	49

The increase in heavy sentences has not been so great as to give rise to any apprehension that undue severity has been exercised. For the most part the additional heavy sentences have been inflicted on habitual offenders or persons who commit grievous hurt. The Judicial Commissioner anticipates that these sentences will have a good effect on habitual criminals, and may act as a deterrent against crimes of violence.

Sentences of whipping.

33. The number of sentences of whipping inflicted by Magistrates were :—

	1877.	1878.	1879.	1880.
In Rangoon town	205	195	98	247
In British Burma, outside Rangoon town ...	1,097	1,039	1,065	1,009
Total ...	2,302	1,234	1,163	1,256

In 1,031, or 82 per cent. of the cases of 1880, whipping was inflicted in place of other punishment, and so the offenders escaped jail altogether. In about one-fourth of the cases the number of stripes was less than 10; in about one-half the number of stripes was between 10 and 20; and in about one-fourth of the cases the number of stripes ranged from 20 to 30. A reference was made by the Supreme Government during the year on the subject of the use or abuse of the punishment of whipping. After consulting selected officers, reply was submitted to the following effect :—

"The Chief Commissioner is decidedly of opinion that the punishment of whipping ought to be kept upon the Indian statute-book, and that it would be a great mistake to abolish it altogether. He believes that the punishment, though much disliked by the sufferers and considered to be degrading, is not contrary to the general sense of the pepole; it is his impression that the punishment is employed in the best-governed Native States; and he has known it awarded with advantage by Honorary Magistrates and Benches of Honorary Magistrates. At the same time Mr. Bernard thinks that this punishment should be confined to offences of which Natives of India admit and feel the moral turpitude."

This opinion was in accordance with the views of all the officers who were consulted except the Recorder, who advised that whipping "as regards adult "criminals * * * * should rather be awardable in cases of violence "against the person than against property, reserving it, in the latter case, for "offenders whose mode of life shows that they are incorrigibly bad."

Sentences of fine.

34. The remarks which have been made from time to time by the Judicial Commissioner and the Recorder concerning the necessity for proportioning fines to the means of offenders have had some effect: 20,248 persons in all were sentenced to fines aggregating £35,200, of which sum £25,030, or 71 per cent., was realised. The average fine was £1-14-0 over the whole province. The average of fines inflicted by Subordinate Magistrates was £1-10-0, and out of the fines imposed by them 81 per cent. was paid. The average of fines imposed by full-power Magistrates, other than Deputy Commissioners, was £2-11-0, and out of their fines only 64 per cent. was realized. No doubt heavy fines in opium and excise cases contribute to raise the average of fine in some Courts. But these heavy fines are not always paid, and in such cases the object of the Magistrate is defeated. The late

Judicial Commissioner, Mr. Crosthwaite, enquired closely into the somewhat remarkable circumstance that fines, apparently very heavy for the means of the offender, were often paid without appeal; and he satisfied himself that in some cases Burman families were absolutely ruined by the heavy fines which they had paid, rather than let a member incur the penalty of imprisonment. The cases of habitual smugglers, who make for themselves or their employers large gains by defrauding the revenue, are special; but in ordinary cases the repeated injunction of the Judicial Commissioner that fines ought to be proportioned to the offender's ability to pay should be obeyed.

Composition of juries.

35. The attention of the Judges has been invited to a point connected with trials by jury in this province. Certain Moulmein cases came before the Chief Commissioner in the course of the year in which Burmans or Natives of India had been condemned by juries consisting entirely of Europeans or Eurasians. It was explained that the practice of the Moulmein Judge's Court required that nobody should be a juror who did not understand English, in which language proceedings are conducted, and into which language the evidence of Native witnesses is translated. On a reference to the learned Recorder, it appeared that a similar practice prevailed in empanelling juries for his Court. No doubt in such cases the law as laid down in section 241 of the Criminal Procedure Code was observed, and one-half of the juries were Eurasians. But it seems most desirable the Courts should, wherever possible, act fully up to the intention of the law, and should have a proportion of Burman jurors to try Burmans, and of Madrasi jurors to try Madrasis. Some of the jurors would then understand the evidence of the witnesses as it was given; and they would, moreover, be able to appreciate more fully the view taken by their fellow-countrymen and co-religionists who might appear for the prosecution or the defence.

Gambling law in Burma.

36. The subject of the gambling law received attention in the course of the year and the Judicial Commissioner found it necessary more than once to draw attention to the way in which the Act is sometimes worked to the unjust harassment of the people and to the unlawful advantage of individual policemen. There can be no doubt but that the Burmese elders in towns and villages regard gambling as, next to opium-eating, the crying evil of the present day. In the Straits Settlements, where Chinese immigrants spread gambling facilities just as they do in Burma, the Legislature have passed a stringent ordinance against gambling; and the Colonial Secretary recently informed the Chief Commissioner that the ordinance had done much good among the Singapore population. Colonel Horace Browne, supported by many experienced officers, submitted a draft Bill, something like the Straits' ordinance, and advised that the Legislature should be moved to pass such a Bill. Mr. Bernard was unwilling to propose legislation of this kind, creating fresh offences and putting fresh powers into the hands of the police. The police have already on their hands as much duty and responsibility as they can properly discharge. We are already exerting ourselves to put down illicit traffic in opium; such exertions involve a certain amount of harassment to the people; and it seemed unadvisable to undertake at the same time an active campaign against gambling all over the country. At the same time it is probable that if the respectable section of the Burmese population could legislate for themselves, they would pass for Burma as strict an ordinance as is now in force in the Straits Settlements.

Prosecutions for local nuisances.

37. The decrease which has taken place, outside Rangoon, in prosecutions for nuisances is matter for satisfaction. Sanitary regulations must be observed, the cleanliness of towns must be secured, and public roads must be kept free from obstructions. Magistrates and Municipal authorities must strive to get the people to work with them for the attainment of these excellent ends. But constant police prosecutions often set the people against improvements of this kind. In the Vaccination Act of 1880 the Legislature have set us the example of requiring that in the case of offences against sanitary laws, the advantage of which the mass of the people

do not appreciate, prosecutions must be laid before Honorary Native Magistrates, who may be supposed to understand and make allowance for popular sentiment.

Honorary Magistrates.

38. This year Honorary Magistrates have been appointed in each municipal town; their jurisdiction has been settled; rules appointing them to sit in benches have issued; and the Honorary Magistrates have now begun to sit.

Now that nuisance cases will go before these benches, it may be hoped that convictions and fines in such cases will be proportioned to local needs and to the means of the people. During the past year effort has been made to give Burman Magistrates a larger share in the criminal administration of their own country by investing them with full powers and by placing them in charge of sub-divisions. Both these steps were taken with the concurrence of the late Judicial Commissioner, and are approved by the present Judicial Commissioner.

Prisons.

Jails and jail buildings.

39. The number of jails and lock-ups is the same as last year, namely, 14. The lock-up at the sub-divisional station of Myanoung has been set apart for the accommodation of leper prisoners, who used to be kept in the hospital enclosures of other jails. Three of the larger district jails—at Thayetmyo, Bassein, and Toungoo—are of suitable design and in excellent repair. Some of the smaller jails, namely, Maoobin, Henzada, and Tavoy, are good and sufficient. The Akyab Jail buildings will be adequate for most requirements when the new hospital building is complete. The smaller jails, where prisoners are kept for a month or so, are susceptible of improvement; but still they suffice for present needs. Nearly everywhere the number of solitary cells is insufficient; and the wooden worksheds will in time have to be replaced by iron or masonry structures in the larger jails. Much money will have to be spent before the central jails of Rangoon and Moulmein can be held to be safe, suitable, and healthy. £24,441 were spent on jail buildings during the year 1880, as compared with £4,774 in the preceding year. Three-fifths of this sum was spent on the Rangoon Central Jail, which is being improved as rapidly as funds and appliances permit. Hitherto the building of jails has been done for the most part by hired labour under contractors. During 1880 it was decided that no hired labour would be allowed inside jails, except for such supervision as might be absolutely necessary. At the Rangoon Central Jail a large number of convicts have been turned into competent bricklayers and carpenters, doing as much work as would be performed by free labourers on 1*s.* to 1*s.* 6*d.* a day. The funds available for jail extensions are therefore going 30 per cent. further than they did before. All the new buildings inside the Sandoway Lock-up, which had recently been built at a cost of £2,038, were burnt down early in the year. New accommodation, with worksheds of a primitive kind, had been erected by prisoners, with hardly any cash outlay, before the end of the year. The existing jails contain accommodation for 5,408 prisoners in all. The average daily number of jail inmates of all kinds was 4,782; and the largest number on any one day of the year was 5,424. In the Shwaygyin Jail only was there any overcrowding, and even there the evil was slight. The fact that Shwaygyin will shortly be within a few miles of the railway to Rangoon makes it unadvisable to enlarge the Shwaygyin Prison at present.

Number of convicts.

40. The average daily number of convicts during the year was 4,577. This number is somewhat in excess of last year's average; but it is about the same as the mean average jail population of the last seven years, which comes to 4,592. Arrangements have been made for transporting yearly long-term convicts to Bengal and to Port Blair. The life-convicts, who are a source of anxiety to Prison Superintendents, will thus for the most part be removed from Burma jails. The proportion of prisoners undergoing long sentences has increased considerably during the last two years.

In December 1878 23 per cent. of the convicts in Burma were undergoing sentences of over two years; in December 1880 the same proportion was 36 per cent.

This difference is believed to be due to the Courts having recently imposed heavier punishment on habitual offenders and on persons committing those crimes of violence which have heretofore been most harmful to society in this province.

Habitual criminals.

41. The number of "habitual criminals," that is, of persons who had been convicted more than once of offences against property, was 555, or 4·3 per cent. of the total numbers in jail during the year. The arrangements for recognising old offenders are apparently improving; nevertheless 86 habituals received shorter terms than, and 44 received the same terms as, on their first conviction. Enquiry is being made in these cases whether the police failed to bring forward the previous convictions, or whether the convicting Magistrates saw good reason for abstaining from giving enhanced punishment.

Juvenile prisoners.

42. There were 51 juvenile prisoners in jail at the end of the year; and 137 juveniles altogether passed through the prisons: these young offenders were kept separate, as far as possible, from the rest of the prisoners, but reformative treatment was hardly possible. Before next January the Poungdeh Reformatory will, it is anticipated, be open for the reception of 20 to 40 juvenile convicts; and in time it will probably be able to receive all the boy-prisoners of the province who may be sent to prison for any term over three months. Girl-prisoners are very few, only three or four in all; and they can be sufficiently accommodated in the women's wards. It is remarkable that in Burma, where women lead freer lives and apparently occupy a happier domestic position than in any other province of India, the proportion of female prisoners is comparatively small. Women are only 1·14 of the average jail population of Burma, whereas in the other provinces of India female prisoners are about 4·6 per cent. of the total number of convicts.

Conduct of jail officers.

43. The free jail officials number 282 in all, and among them 328 punishments were awarded during the year. The Inspector-General reports that "their conduct as usual has "been extremely bad; in fact worse than that of the prisoners." Some of the Jail Superintendents report that the free warders are underpaid, that they habitually bring opium and tobacco into prison, and that they add to their earnings in other unlawful ways. In some places the jail guards also have shown themselves cowardly or corrupt. It seems that the wages of the lowest grade of warder are too low to buy honest service. Proposals are being prepared for putting these establishments on a more efficient footing. For the Rangoon Jail arrangements have already been made to find money for enhancing wages by reducing the strength of the guard. It is most inexpedient to retain a body of jail officials such as the Inspector-General and some of his more experienced officers describe. The convict warders appear to have repeatedly misconducted themselves: 199 were punished out of a total of 278. On some occasions, however, they behaved with courage and fidelity.

Escapes.

44. Two convicts only escaped during the year, one of whom was re-captured by the police. It is remarkable that one of these escaping prisoners had only 15 days, and the other only 79 days, of his sentence unexpired. In each case adequate punishment was dealt to the prison officials immediately in fault. The fewness of escapes was very creditable to the jail discipline and the jail authorities: unfortunately the comparative immunity from escapes which obtained during 1879 and 1880 has not continued, for 11 long-term convicts escaped during the current year from a single jail.

Classification of prisoners.

45. The separation of prisoners of different classes is not as yet fully carried out. In the new buildings of the Rangoon Jail and in the prisons of Thayetmyo, Bassein, Toungoo, and Akyab prisoners are classified in the several sleeping wards, but systematic classification during employment is not effected.

Education.

46. In the larger jails the education of prisoners has received careful attention, and has been successfully carried on according to the rules. The reports of the educational officers

show that jail schools have been inspected, and that the Superintendents themselves have paid much attention to the matter. Out of a daily average of 4,525 male convicts, 1,020 were constantly under instruction. Out of the 1,350 persons who were released during the year after receiving some instruction, there were—

	Unable to read and write.	Able to read and write a little.	Able to read and write well.
When they entered jail	712	530	108
When they left jail	286	791	823

These results are so far satisfactory.

Jail punishments.

47. The principal statistics relating to offences committed by, and punishments inflicted by jail officers on, prisoners in jail for the past four years have been as follows :—

PUNISHMEMTS INFLICTED.

	Offences relating to tobacco, opium, &c.	Offences relating to labour.	Other offences.	Corporal.	Other.
1877	1,051	2,250	2,134	2,629	2,806
1878	866	2,206	2,206	2,953	2,325
1879	679	1,291	1,535	1,849	1,656
1880	794	1,320	1,886	1,793	2,191

There were very great differences in the number and the character of punishments inflicted. In Moulmein Central Jail and in the Akyab Prison the proportion of punishments and of floggings was large. At a special enquiry instituted during the year, it was found that whipping was usually inflicted on prisoners proved to be in possession of tobacco or opium : these forbidden articles are, as stated by several Superintendents of Jails, given to prisoners by the free warders, who carry messages to, and bring gifts from, prisoners' friends. It was considered that flogging was too readily employed in some jails, and orders were given that for offences connected with labour and tasks, or with forbidden articles, prisoners should receive some other punishment than flogging. This order took effect towards the close of the year. Several experienced officers represent that the cessation of flogging for these offences tends to promote indiscipline and other crimes in a prison. But it is as yet too early to judge how far these anticipations will prove correct. Details of the offences and punishments for each month of the year in each jail have been furnished in order to show what effect the restriction on flogging may have had. There was no apparent increase in the number of prison offences or prison punishments during the last two months of the year in any jail, except Moulmein. In the remaining jails the monthly average number of punishments was 206 during the first ten months, while it was 134 during the last two months.

Health.

48. The death-rate of the year was 2·34 per cent. on the average daily number of prisoners. This rate is lower than the death-rate in Burma Jails ever was before, and contrasts favourably with the rates taken by the Jail Conference, namely—

Mean death-rate in all Indian jails for thirteen years up to 1875	5·84 per cent.
Mean death-rate in Burman jails for thirteen years up to 1875	5·47 „

There were only two deaths from ulcers or prison sores, a result apparently due to the care of the medical officers in treating early and carefully these complaints, which in past years have, in the most climate of Burma, been very fatal to prisoners. In the Akyab and Henzada jails only was the mortality considerable. In Akyab the death-rate was a very great improvement on previous years, having fallen from 22 per cent. in 1878 to 15 per cent. in 1879 and to 7 per cent. in 1880. There is still room for improvement. The smaller jails were, with the exception of Henzada, all very healthy. Seventy-three per cent. of the prisoners gained weight while in jail. All the facts disclosed in the returns regarding the health of the prisoners show that, in respect of medical care, diet, and wholesome surroundings, Burma convicts are well off.

Employment of prisoners.

49. Out of the prisoners available for labour, 74 per cent. were employed on manufactures and 7½ per cent. were engaged as prison servants. The average numbers employed were—

On manufactures	2,787
On jail buildings	117
In prison gardens	120
As prison servants	281
As convict-warders	127
On shot-drill	177
On preparing articles for jail use or consumption	156

Some of the forms of labour in the manufacture sheds involve continuous physical exertion. With careful allotment of tasks and supervision of work, carpentry, joinery, polishing, and such like trades can be, and in some prisons are, made highly punitive. Hard and irksome labour, such as the tread-mill, oil-mills, stone-breaking, are given to prisoners as far as means permit. No labour on public works outside the jail walls has as yet been attempted by reason of the lack of heavy works, whereat arrangements for the custody of prisoners can be profitably and safely made. Some few prisoners at Rangoon and Bassein are employed in saw-mills or sawpits outside the jail. This labour is hard and incessant.

Prisoners make their own clothes and jail fittings; they also print and lithograph forms and such like work for public offices throughout the province. The labour of 120 prisoners on the jail gardens yielded vegetables sufficient for the supply of all the jails except Rangoon, where vegetables had to be bought. Prisoners are put on shot-drill, either as a punishment, or in small jails occupied by short-term convicts for whom suitable labour can with difficulty be found. Sometimes Jail Superintendents are driven to this unremunerative form of labour by their own dearth of ingenuity. Oil-pressing cannot be systematically worked in smaller jails by reason of the scarcity of oil-seed and the absence of demand for oil. But employment on breaking road-metal and on cleaning rice for the bazaar can usually be obtained at fairly lucrative rates if care be taken to suit customers. Both these forms of labour are hard and admit of taskwork being imposed.

Financial results.

50. Apart from the heavy expenditure on jail buildings, which expenditure *must* be incurred, the jail administration of the year has been financially successful. The gross cost per prisoner was £7 a head, as compared with £7-4-0 a head in 1879. The cost of the police guards has been reduced. The hospital expenditure has increased, owing to the more careful and prompt treatment of prisoners in hospital. The total cost of the Jail Department, exclusive of jail buildings, was £33,446 during the year. Of this sum, £13,029, or 39 per cent., was recovered as cash profits from the earnings of the prisoners. With improved supervision the prisoners might be made still more self-supporting at the Rangoon Central Jail and at some of the smaller prisons without in any way making prison discipline less punitive or less deterrent.

Civil Justice.

Number of suits instituted.

51. The total number of civil suits instituted in the Courts of British Burma during the year 1880 was 31,011, a considerable decrease on the total of recent years, which stood thus:—

Total civil suits of 1879	33,834
Ditto ditto 1878	33,983
Ditto ditto 1877	31,651
Ditto ditto 1876	30,513

The decrease was largest in the Court of Small Causes at Rangoon, where the office of Second or Burman Judge was vacant for the greater part of the year. But decrease is apparent in all districts, both on the seaboard and in the interior, Hanthawaddy, Amherst, and Mergui only excepted. No general explanation can be found for the decrease in civil litigation; but, among other causes, are

stated the contraction of their business by Chetties, or money-lenders, of Madras extraction, the good crop which enabled people to pay their debts without trouble, and the discouragement shown by the Courts to suits for damages on account of fancied wrongs.

Value of litigation.

52. The total value of the suits disposed of during 1880 was £326,953; and the average value of each suit was £10-14-0, as compared with £12-10-0, £10-12-0, £9-12-0, and £9-6-0 per suit in the four preceding years. Out of the total suits decided during the year the value of the property in litigation was—

£2 or under in	...	9,208, or 30 per cent. of the whole.
From £2 to £10 in	...	15,291, or 50 ditto.
Over £10 in	...	6,078, or 20 ditto.

In 343 suits, chiefly matrimonial causes, the subject of ligitation could not be valued.

Distribution of business.

53. Original civil suit business was distributed among the several Courts thus:—

Recorder's or High Court	...	168 cases.
District Courts	...	185 do.
Small Cause Courts	...	6,639 do., or 21 per cent. of the whole.
Sub-divisional and Township Courts ...	...	23,575 do., or 76 ditto.

The last grade of Courts are for the most part presided over by Burman Judges, who dispose of about 74 per cent. of the original civil suits in the province. The matter of giving Small Cause Court powers to experienced Burman Judges has been carefully considered during the past year, and, with the advice of the Judicial Commissioner, these powers have been conferred on a few selected Judges. It was not thought advisable to remove the check which liability to appeal imposes from the majority of Judges.

As yet appeals are not very numerous; and in the present state of the subordinate Courts the supervision of careful appellate authority has many advantages.

Description of suits.

54. There has been little change in the proportions which the several descriptions of suits bear to the whole litigation. The suits relating to immoveable property appear to be increasing and are now 1,844, as compared with 1,248 in the year 1877. There seems also to be an increase in the suits for dissolution of marriage and for the enforcement of matrimonial rights. The suits of this class now amount to 1,068, as compared with 839 four years ago. The increase in litigation of this class is not regarded with satisfaction by the respectable classes of the people. Suits for "damages" come to 13 per cent., or about the same proportion as heretofore, on the whole litigation.

The suits relating to shipping are remarkably few; there were only two cases before the Recorder in his Admiralty jurisdiction; and one shipping case came before a District Court. The total number of suits on "account stated," on "written obligation," and on "unwritten obligation" was 12,594. It appears that the cultivating classes of Burma, though they spend their money freely, are not involved in debt after the manner of Indian ryots in some provinces. Yet the interest charged on agricultural loans ranges from 3 to 7 per cent. per mensem. The Settlement Officer of Hanthawaddy reports the result of his enquiries into the indebtedness of the cultivators thus:—"About 18 per cent. would appear to "be in debt; but these debts represent the necessary recurring expenditure for "keeping up large farms, and they are often paid off after a single harvest. The "Burmese cultivator of course has sometimes to resort to the money-lender, "but he is generally solvent in the cases of indebtedness met with."

Duration of suits.

55. Original suits have been promptly and regularly disposed of; only 889 cases were "pending" at the close of the year. The average duration of suits was—

	tested cases.	Uncontested cases.
Recorder's or High Court ...	62 days.	36 days.
Rangoon Small Cause Court ...	27 "	19 "
Sub divisional and Township Courts	15 "	8 "
Small Cause Courts in districts ...	11 "	7 "
Chief Courts of districts ...	25 "	15 "

For the most part these periods of average duration are somewhat lower than the corresponding periods of the previous year; and the Judicial Commissioner pronounces the duration of cases in the lower Courts to be good. The Moulmein Judge's Court appears to have been the only Court in which there were serious, though to some extent unavoidable, delays.

Results of suits.

56. The results of the trial of original civil suits may be abstracted thus :—

		Contested suits		Uncontested suits		
	Referred to arbitration.	Judgment for plaintiff in whole or in part	Judgment for defendant.	Dismissed in default or *ex-parte* and withdrawn.	Decreed on confession or *ex-parte*.	Compromised.
Recorder's or High Court...		69	27	16	62	18
Rangoon Small Cause Court		586	483	744	1,324	185
Sub-divisional and Township Courts...	73	6,802	3,733	4,931	6,279	1,868
Small Cause Courts in districts	12	723	286	574	1,498	173
Chief Courts of districts ...	8	73	30	8	62	14
Total ...	88	8,253	4,559	6,273	9,225	2,258

Forty-two per cent. of all the cases were contested, the proportion ranging from 50 per cent. in the Recorder's Court to 31 per cent. in the Small Cause Courts of the interior. In the Sub-divisional and Township Courts, where four-fifths of all the civil suits are decided, 44 per cent. were contested. These proportions are somewhat higher than last year. The percentage of contested cases in Burma is much higher than in other provinces. According to the Home Office statistics volume of 1880, only 27 per cent. of all the civil suits decided in the whole of India were contested. The large proportion of contested cases in Burma perhaps warrants the belief that both parties to a case have confidence in, and usually receive justice from, the Courts. The proportion of cases dismissed in default has increased somewhat. But enquiry regarding certain Courts where the proportion appeared excessive showed that such cases were settled amicably out of Court by the parties. The fact apparently is that a great number of petty disputes are settled by village elders. Those cases which do not admit of such settlement come into Court, and then the parties, if they cannot come to a compromise, prefer to fight the matter out in Court.

Arbitration.

57. The number of cases referred to arbitration was extremely small. The district reports are silent as to any efforts that may have been made to get parties to have recourse to arbitration. It does not appear that any awards, made by arbitrators out of Court, were filed by parties under section 525 of the Civil Procedure Code.

Execution of decrees.

58. The total number of decrees passed during the year was 22,062, and in 7,424 cases applications for execution of decree were filed. The proportion between the number of decrees and applications for execution is about the same as in former years. But this proportion is very much smaller in Burma than in other provinces of the Empire.

It has been ascertained from enquiry in many quarters that when a decree is obtained it is usually satisfied by payment out of Court, as the defendants are for the most part well-off and able to pay. On the applications before the Courts during the year, 3,259 decrees were completely, and 1,481 decrees were partially, executed. These amounted to 44 per cent. and 20 per cent. respectively of the total, as compared with 39 and 23 per cent. in the previous year. For some years past the proportion of decrees successfully executed has increased steadily, so that the failure of the Courts to secure their right to judgment-creditors does not keep those parties from taking out execution. Processes issued for the imprisonment of 1,212 persons in execution of decree; but it is not stated how many people were actually committed to prison. The Tharrawaddy district report shows that, though 104 processes issued for the imprisonment of judgment-

debtors, only one debtor was actually sent to prison. During the year 1880 as many as 420 male and 105 women debtors were admitted into the jails. The average number of debtors in prison at one time was 37 men and 8 women. It seems that there is a greater habit of committing debtors to jail in Burma than in other provinces. In the Bassein Jail, on the occasion of the Chief Commissioner's visit, three members of a family,—father, mother, and son,—were in prison on the same decree. The Chief Commissioner has recommended that, in connection with the Insolvency Bill, the Legislature be moved to abolish imprisonment for debt in India in cases where the debtor is not guilty of fraud. The number of cases in which immoveable property was sold in execution of decree was 500, as compared with 561 and 514 in the two previous years. The reports do not distinguish between landed and house property in these cases. But, so far as can be ascertained, ordinary holdings in the interior do not largely change hands in consequence of sales under decree of Court.

Appellate business.

59. The total number of appeals for decision was 2,201, as compared with 2,109 in the preceding year: 206 appeals lay in the Court of the Judicial Commissioner. Of these all but 11 were second appeals from the decisions passed by the lower appellate Courts. The total number of appeals preferred against original decrees was 1,876, or 15 per cent. of the total number of contested suits, as compared with 19 per cent. for the whole of India according to the Home Office statistics quoted above. The number of appeals and the proportion of appeals to contested cases has doubled during the last four years; but it would seem that the proportion of appeals is even now lower in Burma than in other parts of India. Second appeals were preferred in 174 cases, or against 9 per cent. of the orders passed by the lower appellate Courts. The results of appeals, as compared with the results of the previous year, were:—

	Appeals against original decrees.		Appeals against appellate decrees.	
	1879.	1880.	1879.	1880.
Decrees confirmed	1,162	1,110	127	99
Do. modified	167	204	5	5
Do. reversed	393	467	58	46
Do. remanded for re-decision ...	46	39	4	2

These figures show that the proportion of reversals and modifications was larger in 1880 than in 1879, and that the work of the Courts has stood the test of appeal less satisfactorily than in the previous year. The duration of appeals in the chief Courts of districts was 21 days, as compared with 27 in the preceding year. In Bassein the duration was 74 days; but the district was for a part of the year shorthanded, and the Deputy Commissioner's work fell into arrears. The only other Court in which appellate business was delayed was the Special Court. Now that the appellate and other business coming before the Special Court will be largely reduced, it is hoped that the Court will be able to dispose promptly of the very few civil appeals that may come before it.

Insolvency.

60. The number of insolvency petitions filed before the Recorder's Court fell from 53 in the year 1879 to 26 in the year 1880. People are having recourse to the new insolvency provisions of the Civil Procedure Code in slowly increasing numbers. One hundred and sixty-eight insolvency petitions were filed in Courts outside Rangoon, as compared with 135 in the year 1879. The provisions of the law are made known to debtors by affixing translations of the insolvency sections in the debtor's ward of every jail. But as yet, save in the towns of Moulmein and Bassein, very little recourse is had to the Act. The disposal of insolvency petitions was as follows:—

	Number of applications of persons.			
	Pending at beginning of, or preferred during, the year.	Granted or adjudicated insolvent.	Rejected, dismissed, struck off, or withdrawn.	Pending at the close of the year.
Recorder's Court ...	43	21	6	16
Other Courts ...	168	89	74	5

Costs of litigation.

61. The figures and tables in the annual reports do not furnish information regarding the costs of litigation, save only in respect of the fees for serving processes. After inspecting the work of a considerable number of Courts, it was the Chief Commissioner's impression, in which the late Judicial Commissioner to some extent agreed, that the costs of petty litigation were often swelled by excessive payments for commissions, by unduly heavy pleaders' fees, and by other reducible charges. Respecting some of these items, the late Judicial Commissioner issued orders, and respecting others little is needed but the due enforcement of existing rules. The returns of the process-serving fees show that, in the civil and criminal Courts outside Rangoon, the fees for issuing processes yielded £12,982, while the cost of the process-serving establishments came to £8,242. This charge must probably be increased by 12 per cent. on account of pensions and leave allowances. But even then a surplus will be left of about £3,800. It is not desirable that the business of process-serving should be made a source of revenue; and the Judicial Commissioner has been invited to consider whether a reduction can properly be made in any of the fee rates, or whether any additional charges, such, for instance, as boat-hire for the conveyance of process-servers in the riverine districts, ought not to be sanctioned against the process fund. Meanwhile the surplus fees of the past year, *viz.*, £3,800, have been placed at the disposal of the Judicial Commissioner for expenditure for the benefit and convenience of suitors, either in providing suitable suitors' halls, or consulting-rooms outside the court-houses, or in such other way as the Judicial Commissioner may decide.

Inspection of Courts.

62. The Judicial Commissioner, so far as opportunity permitted, visited and inspected the work of subordinate Courts; and some of the Deputy Commissioners exerted themselves to control and guide the Burman Judges in their districts. It appears from the inspection memoranda recorded by the Judicial Commissioner that the practice, procedure, and appliances of the subordinate Courts require a great deal of supervision and control. The discharge of these duties primarily devolves upon divisional Commissioners rather than on the Judicial Commissioner, who cannot be expected to visit every township in the province.

Arakan Hill Tracts.

63. The figures set forth in the foregoing paragraphs do not include the petty litigation in the Arakan Hill Tracts. Eighty-eight original suits and three appeals were instituted during the year. Fifteen cases in all were contested, besides 25 cases which were referred to the arbitration of the tribal chiefs. The decision of these chiefs are reported to be popular, and also to be honestly and conscientiously given. No decree-holder had occasion to apply for execution of his decree.

Registration.

General remarks.

64. The work of registration was carried on, as in former years, by Deputy Commissioners and Assistant Commissioners as Registrars and Sub-Registrars respectively. The Deputy Commissioner of Moulmein town was appointed Registrar of the town district, the Assistant Commissioner, Salween, Registrar of the Salween district; otherwise the number of officers has remained unchanged. The Sub-Registrar at Poungdeh was not able to furnish statistics this year owing to the records of the office having been destroyed by fire. At Donabyoo no registration was effected as the Township Officer could not write English, and under the then orders all endorsements and registers had to be kept in English.

Number of documents registered.

65. The total number of documents registered was 6,107, as compared with 4,622 in the previous year. Compulsory registrations are shown as 4,558, as against 3,712 in 1879-80, while optional registrations have increased from 910 to 1,549 during the year under report. The number of documents relating to immoveable property has increased from 3,928 to 4,858. The returns show an increase in the work of the Registration Department in all three divisions. In the Arakan division the number

of documents in which Arakanese were the sole parties rose from 201 to 827. The returns of the Pegu division show an increase of 1,034 documents over last year. This is attributed by the Commissioner to the fact that a larger number of leases of land were granted by Government to private persons. In the Thayetmyo district there was a slight falling-off in the number of documents registered. In the Tenasserim division there has been a general increase. In miscellaneous business there is a slight falling-off, the number of powers-of-attorney authenticated having fallen from 724 to 689.

Value of property.

66. The total value of documents registered in 1880-81 was £994,411-16-0, as against £693,307 in 1879-80. There is a large increase in the value of documents relating to moveable property, the amount rising from £93,150 to £321,456. This increase occurred in the Pegu and Tenasserim divisions. No special cause has been assigned for it.

Receipts and expenditure.

67. The total receipts of the department amounted to £1,617. The fees on ordinary registration amounted to £1,395, showing an increase of £386 over the figures of the previous year. There was also a slight increase in the amount of miscellaneous fees. The total expenditure amounted to £686, as against £637 in the previous year. This increase was mainly owing to a greater cost of establishments.

The general results of the working of the department appear to show that the advantages of registration are gradually becoming better known among the Burmese; but registrations are still very few compared with the numbers and wealth of the people. Since the close of the year under report new sub-registry offices have been opened at township head-quarters with Extra Assistant Commissioners as Sub-Registrars, and the use of the vernacular for endorsements and for registers has been sanctioned.

For the present offices have only been opened at the head-quarters of certain selected Extra Assistant Commissioners. Should the results of the experiment be satisfactory, it is proposed gradually to extend the system, until finally a sub-registry office shall have been established at the head-quarters of every township in the province.

Municipal Administration.

Population.

68. No new municipalities were constituted during the year. According to the census returns, the population of the seven existing municipalities was 282,950. Proposals were made during the past year to extend the Act to Shwaygyin, Tavoy, Shwaydoung, and Yandoon. In the first three cases the proposal was opposed by the townspeople, who feared that municipal organization would involve additional taxation and unpleasant restrictions on their freedom. The men of Shwaydoung said in their representation, "if we had a municipality, we should be obliged to pay grievous "taxes like people in Rangoon or Prome, and we should be prevented from tying "up our goats under our houses." Perhaps this view of the matter will be gradually modified and the advantages of municipal self-government may in time be better appreciated. In the meanwhile, however, it has not been thought desirable to force upon the people a system which they do not desire, and the number of municipalities accordingly remains in the present year the same as it was in 1874. It is possible that, if in future a proportion of the Municipal Commissioners are appointed by election of rate-payers instead of by nomination of the Chief Commissioner, the popularity of the municipal institution may be increased. In Yandoon the local officers reported that a municipality might perhaps end in the Committee's outvoting the resident Magistrate, and so, as there were some burning questions about river frontages, the matter was postponed. Subsequent experience showed that in one or more questions of town administration local interests would have benefited if the action of the local Magistrate had been controlled by an intelligent committee of the townsfolk. The question of establishing a municipality at Yandoon will be again considered,

but it is as yet by no means certain that the townspeople wish for such a measure.

There was no change of importance in the constitution of the several committees. The members number 105 in all. Of these, 34 are members *ex-officio*, the remaining 71 being nominated by the Chief Commissioner; 47 are Government officials and 58 non-officials; 56 are Europeans and 49 Natives. The Municipal Act provides for the appointment of members either by nomination or election. Hitherto no members of committees in British Burma have been appointed by election. Since the close of the year a letter has been addressed to the Rangoon Municipality requesting a consideration of the matter. It is understood that the Committee generally are in favour of the appointment in future of a certain proportion of their members by election, and a report is expected shortly from them on the subject. It is probable that hereafter two-thirds of the members of all the municipalities in the province will be appointed by election.

Financial results.

69. The total income of the several municipalities for the year 1880-81, excluding a sum of seven lakhs borrowed by the Rangoon Committee for the water-supply scheme, amounted to £142,012. The income of the Rangoon Municipality amounted to nearly eight-and-a-half lakhs; the incomes of Prome, Moulmein, and Bassein to rather over a lakh each; that of Akyab to £9,100; and those of Henzada and Toungoo to £7,100 and £6,100 respectively. The balances in favour of the municipalities at the beginning of the year aggregated £30,497 and at the end of the year £41,518. The expenditure of the Moulmein and Toungoo Municipalities was in excess of their income. In the other municipalities the income exceeded the expenditure. The following table shows the financial position of the several municipalities during the past two years:—

	Opening balance.		Income.		Expenditure.		Closing balance.	
	1879-80.	1880-81.	1879-80.	1880-81.	1879-80.	1880-81.	1879-80.	1880-81.
	£	£	£	£	£	£	£	£
Rangoon	12,184	11,076	72,185	81,300	73,266	75,147	11,076	20,229
Prome	2,132	1,092	10,532	11,892	11,572	10,165	1,092	2,819
Moulmein	990	4,773	14,522	11,889	10,739	15,794	4,773	868
Bassein	2,413	2,996	10,739	11,549	10,156	11,144	2,996	3,392
Akyab	1,242	2,548	8,777	9,143	7,472	8,275	2,548	3,416
Henzada	6,398	6,979	5,105	7,116	4,824	4,288	6,979	9,807
Toungoo	5,632	1,031	5,775	6,128	5,376	6,171	1,031	984
Total ...	25,993	30,497	127,912	142,012	123,408	130,986	30,497	41,518

There was an increase in the income of every municipality except Moulmein. This increase would have appeared considerably larger, and would have been shown at Moulmein as well as at the other municipalities, but for a change in the manner of collection of the municipal tax, in consequence of which the figures of 1879-80 included the collections of five quarters instead of four. The incidence of taxation was greatest at Rangoon, where it amounted to 15*s.* per head, and least at Moulmein, where it amounted to 7*s.* 1½*d.* The average incidence in all municipalities throughout the province amounted to 10*s.* 10½*d.*, as compared with 10*s.* 4½*d.* in the previous year. As explained above, the apparent incidence of taxation was increased by one-fourth last year, owing to the manner of its collection.

The expenditure of the year amounted to £130,986, as compared with £123,408 in 1879-80. The following table shows the principal heads of expendi-

* Excluding loan of £70,000.

ture in the two years, with the proportion to the total expenditure under each head :—

Head of expenditure.	1879-80.		1880-81.	
	Amount.	Percentage of total expenditure.	Amount.	Percentage of total expenditure.
	£		£	
Collection of taxes and head office establishment	13,258	10·9	12,208	9·8
Conservancy and leansing and drainage works	22,845	18·4	23,593	18·0
Water-supply	4,016	3·3	6,398	4·9
Police	14,688	11·9	14,812	11·3
Lighting	5,237	4·2	3,843	2·9
Road-making, repairing, and watering	19,048	15·4	24,077	18·4
Hospitals, vaccination	5,729	4·7	6,008	4·6
Education ...	2,995	2·4	2,938	2·2

The reduction in the cost of head office establishment and collection of taxes is satisfactory. There was a reduction in the cost of head office establishment at Rangoon, Prome, Moulmein, and Akyab, and in the cost of collection of taxes at Akyab, Bassein, Henzada, and Toungoo. The decrease in the cost of office establishment at Prome and Akyab was due to the office of Secretary having been vacant during the latter part of the year. Paid secretaries on considerable salaries were entertained by the Municipalities of Rangoon, Moulmein, Akyab, Bassein, and Prome. At Moulmein, Akyab, Bassein, and Prome serious defalcations or irregularities occurred. In India municipalities of this calibre do not employ paid secretaries; the duties are performed by one of the Government officers having seats on the Committee. The Municipalities of Akyab and Prome now do without paid secretaries.

Conservancy.

70. The amount spent on conservancy and drainage was little more than in 1879-80, only 18 per cent. of the entire expenditure of the municipalities having been devoted to these objects. In Rangoon £14,445 were expended on conservancy and drainage in 1880-81, against £13,285 in the previous year; the day conservancy establishment was increased, and 8,500 feet of brick drains were built. A project of night-conservancy and drainage was drawn up by a committee specially appointed for the purpose, and has been submitted to the Chief Commissioner since the close of the year and sanctioned.

At Prome and Henzada drainage schemes have been sanctioned since the close of the year and the works are now in process of construction. For Moulmein a scheme was drawn up and approved, but, owing to lack of funds and the opposition raised to the imposition of any additional taxation, the execution of the works has been postponed. At Akyab, owing to want of funds and the expenditure involved by the destruction of the municipal bazaar, the preliminary surveys, which were being undertaken with a view to a drainage system, were discontinued. At Toungoo a system of brick drains for the whole town was commenced and £594 were expended on the work. The conservancy establishment was strengthened. At Bassein public latrines on a self-acting dry-earth system are being gradually introduced throughout the town, all cesspits being closed in each quarter in which a public latrine has been erected. Six of these latrines have now been put up, and it is calculated that 1,200 persons use them daily. Sketches of the latrine, which was designed by Dr. Baker, the Civil Surgeon, and which is extremely simple both in construction and in use, have been circulated to the other municipalities in case it may be thought well to erect such latrines elsewhere. A sum of £1,232 was expended at Bassein on drainage and reclamation works. The town possesses already over 8,000 feet of brick drains, and 6,000 feet more are to be built this year.

Water-supply.

71. The expenditure on water-supply amounted to £6,398, as compared with £4,016 in the previous year. The provision of a good water-supply is one of the most important objects to which the attention of a municipality can be directed. At Rangoon a portion of the town has already been provided with an abundant supply of good water from the Royal Lakes, with the result that the health of the people of the quarter has greatly improved. A scheme for providing the remainder of the town with water has been sanctioned; a loan has been raised for the purpose, and the works are now well advanced. In Moulmein the subject has been discussed and several schemes of water-supply have been proposed. In consideration of the great benefit which would be derived by the jail from the execution of such a scheme, assistance from provincial funds was promised to the Committee. But the members are not at present satisfied of the necessity of any water-supply scheme, the opinion generally held by the Native members being that the water obtained from the wells is sufficient in quality and quantity for the needs of the town. There is, moreover, a strong feeling among the townspeople and many of the Committee against the imposition of the additional taxation which a general scheme of water-supply would necessarily involve. Accordingly it appears unlikely that for the present any improvement will be made in the water-supply of Moulmein. At Akyab the Committee are prepared to adopt a scheme of water-supply, but the preparation of a suitable scheme has hitherto been delayed for want of competent scientific advice. It was at one time proposed to depute Mr. O. D. Clark, Engineer to the Rangoon Municipality, to Akyab to consider and advise upon the matter, but it was found that the Municipality were unable to spare his services. Now that the Akyab Municipality have an Engineer of their own, the matter will no doubt be again taken up. At Bassein much attention has been given to the subject, and a careful scheme was prepared for supplying the town with water from the Irrawaddy. This scheme was to have been at once put into execution, but an important change has recently occurred in the bed of the Nawoon above Thambyadaing, the effect of which it is impossible at present to foresee. It seems possible, however, that one effect will be to render the water at Bassein brackish and unfit to drink, as it is said to have been some 20 years ago. The execution of a scheme of water-supply must therefore of necessity be delayed for some time, but the matter will not be lost sight of. At Prome the desirability of a water-supply has been recognized, but, from want of funds and other causes, nothing has hitherto been done. The matter is now receiving attention. From Henzada and Toungoo no proposals on the subject of water-supply have been received.

Lighting.

72. The cost of lighting the public streets was reduced from £5,237 in 1879-80 to £3,844 in the year of report. The reduction in expenditure was due to a fall in the price of kerosine-oil and to the saving effected in Rangoon by taking the lighting out of the hands of the contractor and putting it under municipal management. The only towns which are fully lighted at night are Rangoon and Toungoo, but a few lamps are maintained at Bassein, Henzada, and Prome.

Roadways.

73. A sum of £24,077 was expended in making, repairing, and watering roads, as compared with £19,048 in 1879-80. The increase under this head was common to all municipalities except Toungoo. At Prome the increased expenditure was due to the payment in 1880-81 of the cost of roads made in the previous year. At Rangoon, Akyab, and Bassein the increased expenditure was partly due to a rise in the price of road metal. In all these towns complaint is made of the increasing difficulty of obtaining stone for the roads. The sailing ships which formerly visited these ports in large numbers, and which were nearly always ballasted with stone, are being replaced by steamers which do not carry stone-ballast. It will clearly be necessary before long, in Rangoon at any rate, to make fresh arrangements for the supply of road metal, which will have to be brought down by rail or river from such suitable localities as may be selected for the purpose. At Rangoon a sum of £2,942 was spent upon watering the roads. The Municipalities of Rangoon and Moulmein have invited tenders for the construction of tramways, and it is understood that, in Rangoon at least, a Company is being formed to construct

and work tram lines. A tramway leading through the town to the Great Shwaydagone pagoda would be a great convenience to the public.

Sanitation.

74. The amount spent by the municipalities upon hospitals, vaccination, &c., increased from £5,729 in 1879-80 to £6,008 in the year under report. There was an increase of expenditure under this head at all towns except Bassein. The management of the town hospitals has now been undertaken by all the municipalities, and a portion of the cost of the institutions is paid by them. In the annual reports of the Rangoon, Bassein, and Prome Municipalities no reference whatever is made to the condition of the hospital, while the Henzada report is the only one which makes any reference to vaccination. This is no doubt due partly to the fact that the condition of the hospitals and the progress of vaccination have already been reported upon and reviewed in the annual sanitary report, but the circumstance is to be regretted as the remarks and suggestions of the Committees upon both subjects would have been read with interest. The subject of vaccination has received attention from the Municipal Committees, and from Akyab, Rangoon, and Toungoo proposals have been received for the extension of the Vaccination Act to those towns. The Government of India have expressed a wish that offences against the Vaccination Act should be tried as a rule by Native Honorary Magistrates. Native Honorary Magistrates have now been appointed and have begun to sit in all municipal towns, and thus one objection which formerly existed to the extension of the Act has been removed. The arrangements for vaccinating the people remain, however, still very far from complete; the number of vaccinators is too small, and the lymph supplied has not always been sufficient or of good quality. Improved arrangements for the local supply of animal lymph from a vaccine establishment at Thayetmyo are now being made by the provincial Government. It remains for the municipalities to strengthen the vaccination establishments and to take measures for popularizing vaccination and making it readily accessible to all persons willing to be vaccinated. In Rangoon a petition signed by some of the principal Burmese Honorary Magistrates and elders praying that the Act may not be extended to the town has been received. The petitioners represent that the Burmese do not believe in vaccination, but have confidence in inoculation; and that to make inoculation penal will be very great hardship to the people of Rangoon. The petition has been referred to the Committee and is at present under consideration. It may be possible in time to extend the Act to all municipal towns; at present, however, in the face of the strong feeling of the people in favour of inoculation and the failure on our part to provide the means for fully vaccinating the population, the enforcement of the Act can scarcely be insisted upon.

Education.

75. The expenditure upon education amounted to £2,938, or very slightly less than in the previous year. The general management of the town schools has now been undertaken by the Municipal Committees of Bassein, Henzada, Prome, and Toungoo, where a considerable share of the local expenditure on education is borne by the municipalities. At Rangoon, Moulmein, and Akyab the expenditure on education is at present very small. The Government schools at these towns have been regarded as provincial rather than municipal institutions, and their mangement has not, as yet, been made over to the Municipal Committees. At Moulmein and Akyab, where the amount spent upon education amounted only to £79 and £69, and where it would appear therefore that the municipalities can hitherto have taken but little interest in the subject, it may be desirable to make over the Government schools to municipal management. At Rangoon the amount spent on education was £220 only. The subject is barely alluded to in the annual report, and would appear to have not hitherto received at the hands of the Committee the attention it deserves.

Municipal byelaws.

76. The subject of the municipal byelaws was under consideration during the year. Difficulty had frequently been experienced in enforcing many of the byelaws framed by the various municipalities, the legality of some of them having been from time to time disputed. There was also not a little disparity in the byelaws of the different

towns, what was legal in one town being frequently illegal in another. Again, in some cases, matters had been inserted in municipal byelaws which were already sufficiently provided for by the existing law. For want of competent legal advice, several of the municipalities found a difficulty in framing suitable regulations. It was accordingly decided that the Government Advocate should be asked to draw up a complete set of byelaws applicable, so far as possible, to all the municipalities, and that these byelaws should be submitted to the several Committees for adoption if approved. Since the close of the year a complete set of byelaws, embodying, so far as possible, all the existing regulations of the several Committees, has been circulated in this manner. The draft byelaws have already been approved by several of the municipalities, and there is reason to hope that, before the close of the present year, they will have been generally adopted. It was anticipated that certain modifications would be necessary to suit the varying local circumstances of the several towns. But the alterations which have so far been proposed have been few and unimportant.

Vital statistics.

77. The attention of all municipalities has been called to the importance of securing the accurate registration of vital statistics. At Akyab a new system of collecting these statistics has been introduced with good effect. At Moulmein the death returns are checked by obtaining independent information from the burialgrounds, a plan which might perhaps be adopted with advantage elsewhere. In all the municipalities efforts are being made to improve registration. Next year's reports will show how far these efforts have been successful.

Military.

Military force.

78. At the beginning of 1880 the effective strength of the troops of all arms in the province was 7,959 men. There were the 43rd, 44th, and 89th European Regiments, with a wing of the 54th Regiment; the 3rd, 4th, 7th, and 11th Batteries of the 8th Brigade, and the 16th Battery of the 9th Brigade, Royal Artillery; the 20th, 22nd, 23rd, 31st, 32nd, 33rd, 41st, and a wing of the 19th Madras Native Infantry; and two companies of the Madras Sappers and Miners. The wing of the 54th was withdrawn during the year, and early in 1881 the 89th Regiment was replaced by the 77th Regiment. The 32nd, 33rd, and wing of the 19th Native Infantry were also withdrawn, the 2nd and 11th Native Infantry taking their place, and the 11th Battery, 8th Brigade, Royal Artillery, was replaced by the 4th Battery, 9th Brigade. The effective strength of the garrison at the end of December 1880 was 6,725 men; and at the end of March 1881 it was 5,653 men, including officers. The total cost of maintaining this force throughout the year has been returned at £361,623.

Volunteers.

79. The volunteer movement has been fairly successful in Burma, and despite the numerous drawbacks incidental to climate, the frequent inability of the men to attend drill, and other causes, there is reason to hope that the basis of a sound permanent volunteer force has been formed. In Rangoon there is one corps drawn from the mercantile and Government offices, with two companies of cadets; and another corps composed of railway employés. The members of the latter, are, from the nature of their occupation, scattered here and there along the railway line between Rangoon and Prome, so that a strong muster of the corps at Rangoon is impracticable. Besides these there is at Rangoon a battery of Volunteer Artillery. Akyab likewise has a corps of riflemen affiliated to the Rangoon volunteers, the whole body forming an administrative battalion. There is also a separate corps at Moulmein, where the movment has been very popular and is maintained with considerable spirit.

Marine.

Marine.

80. The Indian Government steamer *Enterprise* and the river steamer *Irrawaddy* were both employed in the province throughout the year on general duty. Her Majesty's men-of-war *Ruby*, *Dryad*, and *Eclipse* were each stationed at Rangoon during a part of the year, and the *Euryalus*, the flagship of His Excellency the Naval Commander-in-Chief also visited Rangoon. The *Dryad*, in the course of a cruise round the coast in September 1880, paid a short visit to Bassein and Akyab.

IV.—PRODUCTION AND DISTRIBUTION.

Agriculture.

Area under cultivation.

81. A LARGE addition was made during the year to the area of land under cultivation, the total acreage, according to the returns, being 3,518,685 acres, or 153,959 acres in excess of the area cultivated in 1879-80. Of this increase, Arakan accounted for 10,443 acres, Pegu for 118,230 acres, and Tenasserim for 25,286 acres. The season in Arakan was not so favourable as in 1879, still a fair harvest was reaped. In Pegu the rainfall was less everywhere, except in the Bassein district, than in the year before. The Irrawaddy rose three times and flooded portions of three districts, but although the water speedily subsided and allowed of the inundated fields being re-planted, there was insufficient rain later on to ripen these crops. Taken as a whole, however, the general yield was good. The season was also favourable for agricultural operations in Tenasserim. At Tavoy the fall of rain was excessive, set in early in the season, and did considerable injury to the crops.

Rice cultivation.

82. About 88 per cent. of the entire tilled area of the province is devoted to rice, for the production of which the country is specially adapted, and for the further extension of which there is great scope. During the year 3,089,213 acres were under paddy cultivation, there being an increase of no less than 168,193 acres over the returns of 1879-80, induced for the most part by the large profits realised by the farmers in previous years. The demand for rice for export goes on increasing rapidly, and there is keen competition for the business amongst the merchants at the seaport towns. The accepted average yield of paddy per acre, according to the best available statistics, is 1,600lbs to the acre. This is probably a safe and moderate estimate.

Toungya cultivation.

83. Efforts are being made to induce the tribes who chiefly carry on this primitive but mischievous system of crop-raising to turn their attention to more rational methods. It will be a work of many years, and although no precise estimate can be formed of the area subjected to toungya cultivation, it is believed that it is on the decline. The returns for the year under review show that about 61,000 persons were engaged as toungya-cultivators, being a decrease of 9,273 persons compared with the number returned in 1879-80, but it is difficult to arrive in such a matter at the real facts.

Miscellaneous cultivation.

84. A variety of useful products are also grown in the country such as tobacco, sugarcane, cotton, and oil-yielding seeds. The absence of natural energy on the part of the Burmese interferes, however, with the development of these industries, which consequently do not receive the attention they deserve and would well repay. Rice can be grown with infinitely less trouble, and so long as that is the case the inducement to take up other branches of cultivation will be wanting. Doubtless in a few years European capital will be found to engage in the work. The country is more or less well adapted in places for the growth of cinchona, tea, coffee, and potatoes, and the experiments which have been made near Toungoo by private enterprise are not altogether disappointing. In all parts of the country there grow many varieties of fruit trees, in the produce of which a large trade is carried on.

Agricultural livestock.

85. According to the returns the number of cows, buffaloes, and bullocks in the province was 1,534,317 head, or 81,146 head more than in the year before. The number of carts is given as 219,802 and of ploughs as 317,173, compared with 224,943 carts and 311,966 ploughs in 1879-80.

Cattle-disease; veterinary class.

86. No general or serious outbreak of cattle-disease occurred during the year, but in several districts the people lost a good many of their beasts and were prevented from tilling their fields in consequence. The statistics of cattle-mortality are open to some doubt

as no fixed plan for recording them seems to have been prescribed. Arrangements have now been made for this being done in future. The veterinary class under Dr. Frost made good progress during the year, and the pupils were able to give assistance in various places where cattle-disease broke out, by dispensing medicines and giving the people advice as to the treatment of their cattle. When the proposed Agricultural Department is started, it is intended to unite an agricultural class with the veterinary school, a step from which much good may be expected.

Wages.

87. The rates of wages, both for skilled and unskilled labour, continue high. Skilled workmen, such as carpenters or house-painters, receive from 3*s.* to 4*s.* a day. At the seaport towns an ordinary Madras cooly makes 2*s.* a day, and in no part of the province can a labourer be got at less than a shilling a day. Numbers of men come every year from Orissa and Madras to work in the rice-fields and the rice and timber mills. They remit to their country one-half, or even a larger share, of their earnings, month by month, and when the shipping and out-door season ends they return to their homes to take their ease until another season comes round.

Weather and crops.

Rainfall and temperature.

88. Meteorological observations were recorded at seven stations throughout the year, namely, at Akyab, Rangoon, Bassein, Thayetmyo, Moulmein, Mergui, and Tavoy, the instruments being in each case under the superintendence of the civil medical officer of the station. Records of rainfall were regularly maintained at a number of other stations also. The highest registered temperature in the shade was 100·2*deg.* in March and the lowest 61·9*deg.* in December, making a range for the year of 38·3*deg.* and a mean average temperature for the year of 81·16*deg.* The average rainfall for the province was 126·68 inches, compared with 128·3 inches, the average of the preceding five years. The greatest recorded rainfall was 214·84 inches at Tavoy and the smallest 39·02 inches at Thayetmyo.

Good crops were obtained in all parts of the province, the area under rice alone being 168,193 acres more than in the preceding year.

Horticulture.

The Agri-Horticultural Society of British Burma, which was formed about 16 years ago, is maintained partly by grants of money from the local Government and the Municipality of Rangoon—nearly one-half of its income being so derived—partly by the private subscriptions of the few members it now has, and partly by the sale of the fruit, flowers, and other produce of the Society's gardens. The total income of the Society is about £550 a year. The gardens are situated close to the town of Rangoon and are kept up with considerable taste. The private subscriptions to the funds of the Society are limited and fluctuating owing to the constant changes that go on among the European residents, the only section of the community that contributes to the support of the gardens. The Native community, both Burmese and foreign, visit the grounds in great numbers, and seem to appreciate highly the privilege of being allowed unrestricted freedom of admission, but they do nothing to help the Society's funds. Notwithstanding these drawbacks, and the want of any general public interest in its affairs, the Society does much useful work. The experimental cultivation has been attempted, but with varying success, of mahogany, Liberian coffee, Cuzco maize, Manilla hemp, &c., and many varieties of flowering trees, shrubs, and creepers have been cultivated, numbers of them being made over gratis to the Rangoon Municipality and to the State Railway authorities for planting by road-sides and at railway-stations. Until the European community of Rangoon increases and becomes of a more settled and permanent character, the Society cannot hope to extend its operations, or to fulfil its object, with any great measure of success.

Phayre Museum.

89. Perhaps the chief attraction in the Society's gardens is the Phayre Museum, which is visited in the course of the year by many thousands of persons, particularly Burmese and Chinese. The different branches of natural history, particularly the ornithological section, are fairly represented; and there is also a small menagerie, to which the Burmese flock in great numbers. The local Government contributes a grant-in-aid of £180 towards the support of the museum. Visitors pay one pice each for admission, and the income from this source alone in 1880 was £331.

Forests.

During the year 1880-81 was issued Mr. Brandis's report entitled "Suggestions regarding forest administration in British Burma." The issue of this report was one of the most important events in the forest work of the year, and deserves special notice in this place. Mr. Brandis's remarks and suggestions will form the basis for forest work in Burma for many years to come. They explain the course and the object of forest operations in this province, and form a storehouse of information which will be of the utmost value to all who are concerned with the administration of the Burma forests or with the trade in Burma forest produce.

There are three main objects to which the Forest Department in Burma have to devote their attention,—the protection of existing forests; the improvement of forest growth; and the securing of revenue from forests. Their operations for these purposes may be divided into the following heads :—

I.—Forest reservation, that is, the placing of certain selected areas of forest-land subject to special conditions under the direct management of the forest staff.

II.—The protection of these forest reserves—
- (1) from fire;
- (2) in other ways.

III.—Reproduction and improvement of forest growth—
- (1) of teak—
  - (*a*) by means of regular plantations managed by the forest staff;
  - (*b*) by means of planting in toungyas through the agency of Karen and other cultivators;
- (2) of other kinds of trees;
- (3) the introduction of new descriptions of trees and plants.

IV.—The protection and working of forests not included in reserves.

V.—The raising of revenue from forests reserved and unreserved.

I.—Forest Reservation.

Excluding the area allotted to Karens, which was previously 170 and now amounts to 248·5 square miles, the extent of forest reserves has risen from 1,441 square miles in 1879-80 to 2,040 square miles in 1880-81. The increase made to the area of reserved forest during the year under review has thus been 599 square miles, as against 202 square miles in the previous year. This result is obtained after excluding 15 square miles thrown out of reservation.

During the year the work of selecting and demarcating suitable forest areas for reservation was actively carried on throughout the province. In Tenasserim seven proposed reserves in one district, aggregating 144 square miles, were visited and reported on by a specially deputed officer, while in another an area of 61 square miles selected for reservation were reported on by the district civil officer. In the Pegu circle several civil officers were deputed to demarcation duty in various districts, and examined ten proposed reserves. It is believed that the work of demarcation has been satisfactorily done. In some

instances, in consequence of applications from villagers in the neighbourhood of forests already reserved, fresh enquiries were instituted. The results were favourable to the manner in which the reservations had been effected. During the year the selection of areas for future reservation was carried out on a considerable scale by officers of the Forest Department. Demarcation may therefore be said to have made fair progress; and a beginning can now be made in making surveys and working plans of the older reserves. No reserves have yet been proposed in the Arakan division.

II.—The Protection of Forest Reserves.

1. Protection from fire.

90. The Forest Department attempted to protect from fire an area of 96,218 acres, or slightly less than in the previous year, when the area was 98,637 acres. The extent of forest with respect to which their endeavours failed is returned at 2,224 acres for 1879-80; in 1880-81 no less than 19,360 acres suffered from fire. On the other hand, the expenditure on fire-protection rose from £884 to £1,058. In the Tenasserim circle there are apparently ten reserves in which protection from fire was attempted. The efforts of the forest officers were unavailing in as many as six of these reserves. In the Pegu circle the protection from fire of 18 reserves and plantations was attempted. Fire occurred in ten of these, twice in four of the reserves and plantations, thrice in two, and four times in one of them. The general cause assigned for these results is the early and prolonged drought, but in particular cases it would appear that the fault sometimes lay with the persons in charge. In some cases the fire was very trifling, but in several instances there were serious conflagrations. According to later reports, submitted after an examination of the principal reserves which suffered, the damage done is not serious, and in only one reserve would it appear that any teak saplings have been killed.

The protection of reserves from fire is a very difficult matter in Burma. In the year under review £1,000 were spent in attempting to protect from fire 98,000 acres out of a total of 1,300,000 acres of reserved forest. Yet fires occurred once, or more than once, in 16 reserves out of 28, the protection of which was attempted. The reserves will probably aggregate 2,500,000 acres before the demarcation work now in contemplation is finished. At the present rate of charge the fire-protection of this great area would cost over £25,000. Even then it cannot be hoped that in years of rainless spring and summer months fire will be kept out. Nevertheless the work of protecting from fire a yearly increasing area of reserves and plantations must be maintained as one of the primary objects of forest conservancy in Burma. For no reserves except the plantations does the province yet possess a forest survey with complete working plans. Until that is the case, it will not be possible to convert these valuable properties into scientifically managed forests, or to work them to the best advantage.

2. Protection in other ways.

III.—Reproduction and Improvement of Forest Growth.

1.—*The Reproduction of Teak.*

(a).—Plantations managed by the forest staff.

91. In the Tenasserim circle there are no regular teak plantations. There are three small experimental plantations, the aggregate area of which appears to amount only to about 23 acres. An examination of one of these plantations, the Thingannyeenoung, which covers 16 acres of ground, showed that there were 957 trees above 2 feet in girth, some of them being from 4 to 6 feet in girth and having clear stems of 40 to 60 feet high. In the Pegu circle there are nine plantations, but of these two—Myodwin, 10 acres, and Yaneh, 9 acres—are of insignificant extent. At Magayee an area of 149 acres was planted with padouk and teak in the proportion of 1 to 14, at a cost of £1,223, with thoroughly satisfactory results. The total area of plantations is now 3,544 acres. Although it is not intended that the extension of these regular teak plantations shall be

of cauldrons used. The fee has now been raised to a general rate of £2 per cauldron. It is estimated that 436,500 cutch trees were felled during the past season. The production of cutch was much stimulated by high prices, and unusually large numbers of persons, both from British and from Burmese territory, devoted themselves to the business. If cutch continues dear, the increase in the fee imposed on production is not likely to have much effect. Existing cutch trees can hardly last long at the present rate of consumption, and measures are being taken for the reproduction of the tree, which, happily, grows freely and rapidly on land protected from fire and the toungya-cutter's axe.

V.—Revenue.

Revenue is raised by the sale of teak and other timber extracted from the forests and of unclaimed drift timber collected by the Forest Department and its agents; by granting permits for felling timber and taking forest produce at certain rates; by charging a duty on the tonnage of the timber felled; by levying a duty on timber brought in to the province from forests belonging to foreign States. During 1880-81 the yield of the forests in Burma was as follows:—

	Teak.	
	Number of logs and pieces.	Quantity. Tons.
Tenasserim circle—		
From British forests	14,623	5,998
Unclaimed drift from foreign forests	5,066	2,895
Used for depôt purposes	29	14
Total ...	19,718	8,907
Pegu circle—		
By Government agency	12,589	11,564
By purchasers	677	282
Teak trees, thinnings, &c., sold in paddy-land ...	8,247	1,500 (estimated)
Total ...	21,513	13,346
Grand Total ...	41,231	22,253

The quantity of teak timber extracted during the last five years has been in 1876-77, 46,431 tons, in 1877-78, 39-081 tons, in 1878-79, 22,763 tons, in 1879-80, 17,585 tons, and in 1880-81, 22,253 tons.

The quantity of timber other than teak was as follows:—

	Logs.
Extracted by Government agency and under permits ...	106,372
By lease-holders	677
By purchasers	1,921
Total ...	108,970

The prices of timber, which had previously been depressed, began to rise towards the latter part of the previous year and continued to improve during 1880-81, and thus the revenue derived from the timber extracted from the forests was proportionately increased.

The revenue realised by the Forest Department during 1880-81 amounted to £151,661, as against £118,019 in 1879-80,—an increase of £33,642. The revenue was derived from the following sources:—

	£	
I.—Timber and other produce removed from the forests by Government agency	86,149	
II.—Timber and other produce removed from the forests by consumers or purchasers	18,908	
III.—Confiscated drift and waif wood	12,810	
IV.—Duty on foreign timber and other forest produce	32,520	
V.—Miscellaneous	1,274	
Total		151,661

The expenditure during the year amounted to—

	£	
A.—Conservancy and works	47,787	
B.—Establishments	23,470	
Total ...		71,257
Net revenue ...	80,404	

nber is given below :—

	Logs, &c.
By the Irrawaddy	5,404
By the Boolay and Mindone streams	2,096
By the Sittang	9,765
By the Salween	87,951
Total logs	105,216

The timber imported by the Salween came to 109,080 tons, a falling-off from the previous year of 15,568 tons. This decrease was, however, more than compensated for by the superior quality of the timber. In 1879 80 the duty realised on foreign timber was £23,269, so that the revenue has increased by £9,251.

Exports of timber.

97. The exports of teak timber from Rangoon during the year under review are stated at 37,875 cubic tons, valued at £266,836; of those from Moulmein at 113,399 cubic tons, valued at £752,995. The rise in price had apparently had considerable effect in extending the trade and in permitting the export of descriptions of teak that formerly would not have been worth carrying to Indian or foreign markets. Of timber of kinds other than teak, 187 tons were exported from Rangoon and 1,763 tons from Moulmein. From Tavoy 250 tons of timber, chiefly pyingado sleepers, were exported.

VI.—General.

Breaches of the forest law.

98. In the year 1880-81 prosecutions were laid in 114 cases against 176 persons, of whom 151 were convicted in 95 cases. The figures do not differ to any remarkable extent from those of the year before. In one case an impudent swindle was committed in Tharrawaddy, where some rogues personated forest officers, and in that character openly disposed of the right to extract timber of the reserved kinds in several circles of the district for £20 a circle, but this offence fell under the general criminal law rather than under the Forest Act.

Forest work in Arakan.

99. During the year a forest officer was appointed to the Arakan division. There has not yet been time to judge of the nature and extent of the operations which it will be expedient to undertake for the protection of forests and the realization of revenue in this division. The local opinion so far is that little can be done at present, the condition of Arakan being too backward for the introduction of the system which is found useful and profitable in the rest of the province.

Use of bamboo for paper-stock.

100. Progress was made towards the establishment of an important industry in the conversion of bamboos into paper-stock. Mr. Routledge, the paper-manufacturer, was in active communication with the Government of India on the subject, and in the dry season Mr. Pratt Barlow, on behalf of Mr. Routledge and other paper-manufacturers, paid a visit to Burma and saw for himself the principal bamboo-producing localities. The negotiations with Mr. Routledge have now advanced to a point where it rests with himself to commence operations.

Health of officers.

101. Several of the officers in the Tenasserim circle suffered more or less from fever. In Pegu one officer died; another was obliged to leave the province after a prolonged and severe illness; and four others suffered at different times from fever. Superior officers have worked well and given much assistance. A good deal of dishonesty and corruption on the part of members of the subordinate staff came to light

during the year, the only real remedy for which will be the employment, as opportunity occurs, of a better class of men than those now on the establishment.

New forest law.

102. The Forest Bill which was submitted to the Government of India in May 1880 was, after consideration in the department concerned, published in the *Gazette of India* in January 1881. Opinions on it were called for from selected officers, and after consideration of these and personal consultation with the Conservators, the Chief Commissioner submitted his final recommendations regarding the Bill in June last. The Bill has now been passed, but the new Act will not be brought into force until the rules which have to be framed under it are ready for publication.

Mines and Quarries.

During the year under report the mines and quarries in British Burma have remained almost in the same condition as in previous years. The tin mines in the Mergui district, which are the most important in the province, still continue to be worked, but not with any great regularity. In order to stimulate greater exertions in this direction, the royalty of five per cent. which had in previous years been charged upon the value of all tin exported was taken off. It remains to be seen what effect this will have upon the produce of the mines. The importation of iron from England still continues to such an extent as to render it unprofitable to work the veins of iron ore which exist in the Tavoy district. The petroleum wells in the Ramree island are being worked with greater activity. At present it is impossible to speak definitely of the prospects of the Borongo Oil Company. A license to prospect for lead has been granted to an Englishman in Moulmein. Lead ore is occasionally extracted by the Burmans and Karens at a spot near the junction of the Amherst, Shwaygyin, and Salween districts. The veins appear to crop up on the Teetawlay peak, and the prospecting license granted to Mr. Law extends over the whole area of about seven square miles round the Teetawlay peak. The question as to whether it will be profitable to work lead in such an out-of-the-way spot still remains to be determined. A prospecting license has also been granted for a search for antimony in the hills in the immediate neighbourhood of Moulmein.

Manufactures.

Rice and saw mills.

103. The preparation of rice and teak timber for the European market is the most important industry in Burma, and, owing to the enterprise and skill of the mill-owners, the products of these industries are steadily increasing. Considerable improvements have recently been introduced in the machinery and working of rice-mills. Three new rice-mills have been opened, thus raising the number of working rice-mills in Burma to 49. Of the 28 rice-mills in Rangoon, 20 can now prepare white rice fit for home use. The burning of paddy-husk in many of these rice-mills in place of fuel is an economical advantage to the owners, and in addition gets rid of the enormous quantities of husk which hitherto used to be thrown into the creeks.

There are at present about 20 steam saw-mills in Burma.

Weaving.

104. The weaving industry was formerly one of great importance, but latterly the imported fabrics have undersold the local produce, and the quantity produced locally is greatly diminished. The improved type of looms and shuttles which were last year introduced into some of the jails have answered satisfactorily, and an attempt will be made to train some of the Burman weavers in the larger district towns to use this kind of loom.

Pottery.

105. Salt-boiling pots are made in almost every district where salt is made, and water-pots in Shwaygyin, Henzada, Twantay, and many other places. Large water-pots, commonly known as Pegu jars, are made principally at Twantay. Thitnyogone, a village

close to Bassein, is the place where the most ornamental pottery, if ornamental it can be called, is manufactured. The burning for the former lasts about twenty-four hours and for the latter about twelve. The large jars are glazed with a mixture of galena and rice-water. In all cases the pots are turned and finished by hand. The Burmese use china-ware largely for their meals, and in this respect differ widely from natives of India. The ware is mostly of a coarse type, and is imported from Europe and China. When the people succeed in finding good China clays, and in establishing factories of common glazed-ware, a very large local market will be found for such products.

Lacquer-work.

106. Drinking cups and boxes for carrying the necessary ingredients for betel-chewing are made of lacquered-ware, principally in Upper Burma, but also in different places in the province. A box of the required size and shape is prepared of exceedingly fine bamboo wicker-work. On this is evenly applied a coat of a vegetable oil known as thitsee, and obtained from the *Melanorrhœa usitatissima* (once largely exported to China *viâ* Bamo, and when cleaned and purified known as "China varnish"). When this is dry, a paste, composed of fine sawdust, thitsee, and rice-water, is thickly and evenly laid on, and so soon as this has set the box is fastened to a rude lathe and carefully smoothed with a piece of silicious bamboo, which is used in the place of sand-paper. The next coat consists of a coat of finely-powdered bone-dust and thitsee, which when dry is smoothed in the same way and the grounding is complete. In colouring the boxes three colours are only used, but of different shades. For *yellow*, yellow orpiment is carefully pounded and washed several times, being allowed to dry between each washing until a pure and impalpable powder remains, reduced three parts in bulk from the raw powder: with this is intimately mixed a small quantity of a kind of tragacanth, and the whole is dried in the sun. This is worked up to the proper consistency with a vegetable oil called shansee, and a little thitsee is added, but not enough to injure the colour. For *green*, finely-ground indigo is added to the orpiment in a sufficient proportion to give the required shade, and the rest of the process is the same. *Red* is prepared from finely-ground vermillion, mixed with a little thitsee and worked up with shansee. A coat of the colour and shade intended for the groundwork is thickly and evenly applied, and when it is thoroughly dry the pattern which is to appear in the next shade or colour is engraved with a style and the colouring matter applied over the box. When it is dry the box is placed on the lathe, and the second colour removed by means of a bit of silicious bamboo, so that it remains only on the lines of the engraved pattern. Similar processes are followed for the different colours or shades till the design is complete. Lastly, one or two coats are given of a varnish composed of thitsee and shansee. As the box-makers use a lathe, they can give a straight line, which the silversmiths do not. Lacquered boxes, lacquered urns, lacquered trays, are largely used by Bhuddist priests and others to carry or store food, and for many other purposes. Every bazaar or row of shops in a Burmese town or village is certain to contain more or less of lacquered-wares for sale. Prizes were obtained at the Simla Exhibition during the present year for specimens of this ware.

Bamboo-paper industry.

107. A concession has been made to a Mr. Routledge to enable him to attempt the manufacture of paper from bamboo shoots, but it is still uncertain what action will be taken in the matter.

Commercial Marine.

Number of vessels entered and cleared.

108. The number of vessels which entered and cleared at the Burma ports during the year and during its predecessor is shown in the following tables:—

Vessels entered.

Port.	1879-80.		1880-81.		Increase.		Decrease.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
Akyab	538	196,558	602	207,054	64	10,496	...	...
Rangoon	842	614,429	842	584,450	...	...	...	29,979
Bassein	152	120,428	150	122,782	...	2,354	2	...
Moulmein	625	309,197	573	266,010	...	...	52	43,187
Tavoy	403	32,186	392	31,527	...	...	11	659
Mergui	235	24,905	177	22,291	...	...	58	2,614
Kyoukpyoo	63	29,434	58	29,049	...	...	5	385
Sandoway	...	...	...	...	...	...	...	...
Total ...	2,858	1,327,137	2,794	1,263,163	64	12,850	128	76,824

Vessels cleared.

Port.	1879-80.		1880-81.		Increase.		Decrease.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
Akyab	550	201,765	560	201,941	10	176	...	...
Rangoon	864	610,160	874	598,303	10	...	...	11,857
Bassein	147	113,593	145	120,822	...	7,229	2	...
Moulmein	552	301,871	536	265,147	...	...	16	36,724
Tavoy	322	32,531	310	30,856	...	...	12	1,675
Mergui	221	24,249	181	22,375	...	...	40	1,864
Kyoukpyoo	62	29,287	58	28,549	...	...	4	738
Sandoway	...	...	...	...	...	...	...	...
Total ...	2,718	1,313,456	2,664	1,267,993	20	7,405	74	52,858

Many of the vessels which are now engaged in the rice trade are built on a new principle. They are for the most part iron steamers of lighter draft than the old class of wooden vessels, but so constructed that they can carry from 40 to 80 per cent. of cargo in excess of their registered tonnage. It is probable that within a very few years the whole of the rice-carrying trade will be done by steamers *viâ* the Suez Canal.

Suez Canal traffic.

109. There was again a considerable increase in the number of steamers which came and went through the Suez Canal. The arrivals were 41 vessels, with a tonnage of 51,942 tons, as against 21 vessels, representing a tonnage of 29,440 tons. The clearances were 157 vessels, with a tonnage of 181,178 tons, against 127 vessels, with an aggregate of 148,702 tons, in 1879-80. The outward cargo of all these vessels was almost entirely rice.

Mail services and local steam traffic with India.

110. The direct mail service between Calcutta and Rangoon was conducted with unfailing regularity throughout the year by the British India Steam Navigation Company, as was also the coasting service between Chittagong and Mergui, Sandoway being excluded. Arrangements have recently been made by which the coasting steamer will in future touch at Sandoway once a week each way from November to May of each year. The steamers of the Asiatic Steam Navigation Company also plied throughout the year, but at long intervals. Besides these, private steam services, owned partly by Europeans and partly by Chinese, were carried on between Rangoon, Penang, and the Straits Settlements, their principal article

of cargo being rice. The inland steam traffic of the province remained exclusively under the control of the Irrawaddy Flotilla Company, and was carried on with much efficiency. The Company are constantly adding to, and improving the character of, their fine fleet of river steamers, which now numbers 29 steamers and 44 flats. Several steamers belonging to the King of Ava plied during the year between Mandalay and Rangoon, but their movements were irregular, and they are of no account as public carriers.

Light-houses.

111. Lights were exhibited at the seven light-houses and on one light-vessel regularly throughout the year. Two complaints were made regarding the lights exhibited; one of these complaints had reference to Double Island light-house, where it was afterwards ascertained that the light-keeper had slept at his post. The offender was suitably punished. The light-houses are manned by a regularly recruited service, who spend a part of every year on shore. Europeans are employed at two light-houses only, the rest being worked by Natives.* Periodical visits are now paid regularly by the Superintendent to all light-houses; and the Government steamer *Enterprise* is very constantly employed on this duty. The light-houses were all visited once or oftener by a Medical Officer; and certain changes have been made in the diet of light-house keepers. On the whole the men have kept their health, except at the Oyster reef, where three keepers, and at the China Buckeer, where one man, died of *beri-beri* fever. The Civil Surgeon, who inspected these light-houses, was unable to discover what could have been the cause of these outbreaks of disease. The recent change in, or addition to, the diet may prevent recurrence of this complaint; and it seems necessary that increased care should be taken in selecting healthy recruits for the service. The lighting-gear, the buildings, and the fittings of all the light-houses were found to be in good order. Necessary repairs were made in February to the bracing of the piles of Oyster Reef light-house.

The question of retaining a light-vessel, instead of erecting another light-house, on the Krishna shoal has been considered; and it has been decided that a light-vessel should be kept there permanently, and that another screw-pile light-house should not be erected in place of the light-house which disappeared in August 1877. As the temporary light-vessel now on the station cannot carry a sufficiently strong light at a proper height, arrangements are being made for the construction of a new light-vessel with lighting apparatus such as is used for the floating lights at the mouth of the Hooghly.

The gross amount of coast-light dues collected during the year under report amounted to £16,887, against £14,721 in the previous year, showing an increase of £2,166. This is due to the enhanced rate of 1½ anna per ton having been collected throughout the whole year, whereas during the previous year dues were collected at one anna per ton from the 1st April to the 30th June 1879 and at 1½ anna per ton from the 1st July to the 31st March 1880. The total disbursements on account of the coast light-houses and of the light-vessel stationed at Krishna shoal amounted to £6,830, against £6,272 during the previous year, showing an increase of £558 owing to heavy outlay incurred in the repairs of the light-vessel *Colombo*.

As there is an annual surplus from the coast light-house dues of about £10,000, the question of establishing further lights on the Burma coast has been considered. The new light-vessel for the Krishna will exhaust more than the surplus of one year; but meanwhile enquiry is being made whether a light is not required on or near the islands of the Terribles group off the Arakan coast. Now that a regular and frequent packet service is to be maintained for the minor ports in Arakan, and that two steamer lines ply on that coast, the need for an additional light will be more felt. It is proposed to place a small light at the entrance of the Tavoy river; but the lighting of the course through the islands of the Mergui archipelago has not yet been taken up.

Captain Taylor, Superintendent of the Marine Survey, inspected and reported upon all light-houses during the year. His report was of much value to the local Government, and on some of his suggestions action has been, or is being, taken.

Wrecks and casualties.

112. The year was marked by an unusually large number of shipping casualties. No fewer than seven vessels were totally wrecked on or near the Burma coast. The Italian vessel *Superbo*

Richese, while riding at anchor was overtaken by a cyclonic gale and drifted on to the rocks at Diamond island, Bassein river, where she became a total wreck. The British barque *Drumclog*, laden with rice for Europe, after being safely piloted to sea from Bassein drifted on to the Pooriam shoal when attempting to get under weigh to proceed on her voyage, and became a total wreck. The British barque *Birchvale*, from Java to Diamond island for orders, got too close to the Alguada reef light-house "on a clear night with fair weather and a good working breeze," and was suddenly found with all sail set bumping on the rocks at the foot of the light-house, where she became a total wreck. In the case of the *Drumclog* the certificate of the master was suspended by a Court-of-enquiry for six months and in that of the *Birchvale* for nine months. A Coringa vessel of 102 tons was wrecked during bad weather off Akyab, and one trifling case of grounding occurred in Akyab harbour. The barque *Armenia* grounded while in pilotage charge off Green island, at the entrance to the Salween river. She was got off and towed up to Moulmein, where the same pilot placed her high and dry on some rocks, where she broke up. The master was tried and was deprived of his certificate for one year. A British India steamer, the *Kilwa*, grounded on the sands near Amherst point and remained there for two days, when she was got off without injury and proceeded on her voyage. Ten vessels grounded in the Moulmein river while in charge of pilots, who were tried in each case. Some were punished by reduction of draft, others by suspension from duty, and five escaped. In seven cases the pilots were Europeans and in three Natives.

Port funds.

113. Port funds are maintained at Rangoon, Bassein, Moulmein, Akyab, Kyoukpyoo, Tavoy, and Mergui, those of the three last-named places being insignificant. The Rangoon Port Fund is now under the control of the Port Commissioners as a Trust fund. It had an income in 1880-81 of £44,768, the expenditure amounting to £57,173. The combined income of the other six funds for the year was £18,419, or £1,573 more than in 1879-80, the expenditure being £11,610 and £14,108 in the two years. The Municipalities of Bassein, Moulmein, and Akyab received £500, £500, and £720 respectively in the year under review as contributions from the port funds of these places. Compensation has been awarded to the Rangoon Municipality for loss of income arising from the creation of the Rangoon Port Trust, and the Commissioners will from 1882-83 contribute an annual sum of £1,000 to the municipal funds.

Marine surveys.

114. The only survey undertaken during the year was that of the Rangoon river, within port limits, by two officers of the Marine Survey Department. A chart showing on a large scale the result of their work has just been published. The Port Officer, Akyab, laid down some buoys in the channel leading into the entrance of the Naaf river, but a regular survey of the estuary cannot be undertaken until a special surveying steamer is available for the purpose. It is hoped that a general survey of the entire coast on the eastern side of the Bay of Bengal will soon be undertaken.

Pilot Service.

115. Pilots are employed at Rangoon, Moulmein, Bassein, and Akyab. Pilotage dues are not however compulsory at the two last-named ports. During the year 16 European and 6 Native pilots were employed at Rangoon, where they are controlled by the Port Commissioners; at Moulmein there were 12 European and 10 Native pilots, only eight of the former being actually engaged in pilot duty; Bassein supported 7 European and 2 Native pilots; and at Akyab there were 5 Europeans. All these men earn very fair livings. A recent return shows that the average earnings of the Europeans are; at Rangoon about £550 each a year; at Moulmein £360; at Bassein about £450; and at Akyab about £250. Taken as a body the pilots are steady and trustworthy men, but both at Rangoon and Moulmein a number of vessels were grounded, or met with accidents more or less serious, during the year, through the distinct carelessness of the pilots in charge, some of whom were heavily punished. In the case of the Native pilots, measures have been adopted to secure the retention in the service of efficient men only. A considerable change has of late occurred in the class of vessels that visit the Burma rice ports. Instead of sailing ships, large iron steamers are now doing

a great part of the rice-carrying trade. They are constructed on different principles from the older class of vessels, and can carry on a lighter draft of water a quantity of cargo very much in excess of their registered tonnage. The rates of pilotage at the Burma ports being reckoned on the draft of each vessel and not on her tonnage, the pilots complain that they are losing money by this method of remuneration. Where formerly a sailing vessel, when loaded with a rice cargo, drew 22 or 24 feet of water, a steamer of the modern class will take a much larger cargo on a draft of perhaps 19 feet only. The pilots represented that they were placed at a certain disadvantage: not only does each steamer yield them less than they formerly earned by piloting sailing vessels, but the rice exported can be carried on by a smaller number of vessels. A recent careful examination of the question showed however that the time has not yet come for introducing any change in the method of reckoning pilotage, or any increase in the rates now in force.

Marine expenditure.

116. The receipts and expenditure of the Marine Department for the year are shown in the following detailed statement. The receipts were £1,994 over those of 1879-80, and the expenditure shows an increase of £4,979:—

Marine expenditure.

	£
1.—Port Officer's establishment	526
2.—Marine pay and allowances	3,704
3.—Light-houses and ships	8,090
4.—Building and repairs of ships	117
5.—Victuals purchased for crew	1,267
6.—Coal	516
7.—Timber, stores, &c.	1,020
8.—Subsidies to steam-boat companies	8,600
9.—Survey of seaport towns	13
10.—Marine pensions and gratuities	445
11.—River steam (boat) launch	...
12.—Miscellaneous	2
Total ...	24,300

Marine receipts.

	£
1.—Sale proceeds of vessels and stores	367
2.—Shipping fees	167
3.—Freight, passage, and tonnage	312
4.—Coast-light dues	16,756
5.—Miscellaneous	55
Total ...	17,657

Trade.

Value of sea-borne trade.

117. The improvement in the trade of this province during the year under report was again very marked, as is shown in the following statement, from which it will be observed that in the five years enumerated the value of the private imports from foreign countries has increased 74·91 per cent. and of the exports to those countries 70·46 per cent.

Description of trade.			1876-77.			1877-78.			1878-79.			1879-80.			1880-81.		
			Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total	Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.
			£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
PRIVATE. Foreign	Imports		2,170,025	68,272	2,238,297	2,218,238	64,958	2,283,196	2,942,994	36,708	2,979,702	2,979,523	54,282	3,033,805	3,795,693	50,653	3,846,346
	Exports		3,848,863	15,681	3,864,544	4,657,975	12,452	4,670,427	5,337,515	8,493	5,346 007	5,703,563	9,397	5,712,960	6,560,959	4,277	6,562,236
PRIVATE. Coasting	Imports		2,539,379	1,800,408	4,339,787	2,688,202	2,622,670	5,310,872	2,979,129	1,832,881	4,812,011	2,990,479	2,000,325	4,990,804	3,244,946	1,443,791	4,688,737
	Exports		1,667,791	415,520	2 083,311	2,425,887	580,727	3,006 614	2,301,612	836,664	3,141,276	1,938,646	1,142,935	3,061,581	1,824,977	889,898	2,714,875
	Total		10,226,058	2,299,881	12,525,939	11,990,302	3,280,807	15,271,109	13,561,250	2,717,747	16,278,997	13,612,211	3,206,939	16,819,150	15,426,575	2,388,619	17,815,194
GOVERNMENT. Foreign	Imports		141,741	.	141,741	19,073	...	19,073	48,285	...	48,285	17,295	..	17,295	28,937	...	28,937
	Exports		9,830	...	9,830	30	..	30	50	..	50	54	..	54	13	...	135
GOVERNMENT. Coasting	Imports		71,310	60,500	131,810	143,834	55,999	199,833	110,722	124,150	234,872	119,676	29,500	149,176	127,952	110,300	238,252
	Exports		21,501	53,000	74,501	22,158	172,716	194,875	19,140	184,480	203,620	24,354	86,000	110,354	26,415	171,480	197,895
	Total		244,383	113,500	357,883	185,095	228,716	413,511	178,197	308,630	486,827	161,379	115,500	276,879	183,439	281,780	465,219
	GRAND TOTAL		10,470,441	2,413,381	12,883,822	12,175,397	3,509,523	15,684,920	13,739,447	3,026,377	16,765,824	13,773,590	3,322,439	17,096,029	15,610,014	2,670,399	18,280,413

118. In comparison with the year immediately preceding, the va' foreign import trade in merchandise co private persons shows the large increase or 27·39 per cent., in favour of the year of review, against an increa £36,528, or 1·24 per cent., in 1879-80 over 1878-79. The trade in and yarn, cotton piece-goods, machinery, salt, raw silk, and sil' piece-goods was largely enhanced.

Private foreign import trade.

119. The export trade to foreign countries improved to the exte per cent., £857,396 in favour of 1880-8 an increase of 6·86 per cent. (£366,048) in over the year previous. Rice, cutch, and teak were exported in much quantities.

Foreign export trade.

120. The coasting import trade exhibits the comparatively large increa £254,467, or 8·51 per cent., in the year under re over 1879-80, against £11,350, or 0·38 per cen in the latter year over 1878-79. An extended business was done in twist an yarn, gunny-bags, seeds, betelnuts, and tobacco.

Coasting import trade.

121. Coasting exports again show a large decrease (£13,668, or 5·86 per cent.), mainly in rice, the demand for which for India was very limited owing to the excellent harvests there.

Coasting export trade.

122. *Government transactions.*—The value of this trade increased both in merchandise and treasure. In imports from foreign countries there was an improvement to the extent of £11,642, due principally to enhanced importations of hardware, machinery, metals, stationery, and "ships and parts of;" and the exports to those countries went up from £54 to £136 owing to larger shipments of books and printed matter to the United Kingdom.

Foreign.

123. Imports coastwise, consisting mainly of arms and ammunition, liquors, military uniforms, &c., from Madras; opium, metals, stationery, and telegraph materials from Bengal; and metals, opium, railway plant, and telegraph materials from provincial ports, aggregated in value £127,953, against £119,676 in 1879-80,—an increase of 6·92 per cent. Exports to coast ports were of the value of £26,416, against £24,354,—an increase of 8·47 per cent. in favour of the year of report. These consisted chiefly of drugs and medicines, metals, opium, and telegraph materials, which are transported from port to port within the province, and of railway materials, timber, arms, ammunition, and military uniforms sent to India.

Coasting.

124. The treasure transactions on account of Government were much greater in 1880-81 than in the year immediately preceding, £281,780 having passed between the ports of the province and also those of Bengal and Madras in the one year, and £115,500 in the other. This increase was due to the surplus revenue of the Arakan division having been sent to Calcutta and to transfers of Government money from Kyouk-pyoo and Sandoway to Akyab, and from the southern ports of Tenasserim to Moulmein.

Treasure.

125. Reverting to the trade carried on by private persons, that is, excluding the Government transactions to which no further reference will be made, it will be observed that the grand total value of the merchandise and treasure actually landed and shipped at the several ports of the province in the year under review was over 17¾ millions of pounds sterling. This shows the satisfactory increase of about one million sterling over 1879-80, the value of merchandise having increased by £181,500, while the amount of specie transactions decreased by £81,750.

Trade conducted by private parties.

126. In the following statement the value of the trade registered at the several ports of the province during the year 1880-81 is given.

Value of trade at each port.

Port.		Imports.			Exports.		1879-80.		1880-81.	
		Merchandise.	Treasure.	Total	Merchandise.	Treasure.	Total.	Merc		
		£	£	£	£	£	£	£	£	
Rangoon	Foreign ..	3,615,799	31,689	3,647,488	3,723,522	230	3,723,752	7,339,321	[illegible]	[illegible],440
	Coasting ..	1,956,098	577,352	2,533,450	1,091,472	727,615	1,819,087	3,047,570	1,[illegible]	2,352,537
	Total ..	5,571,897	609,041	6,180,938	4,814,994	727,845	5,542,839	10,386,891	1,336,886	11,723,777
Akyab	Foreign ..	23,538	810	24,348	965,326	..	965,326	988,864	810	989,674
	Coasting ..	603,819	435,667	1,039,486	110,306	65,165	175,471	714,125	500,832	1,214,957
	Total ..	627,357	436,477	1,063,834	1,075,632	65,165	1,140,797	1,702,989	501,642	2,204,631
Bassein	Foreign ..	29,576	600	30,176	1,007,827	..	1,007,826	1,037,403	600	1,038,008
	Coasting ..	42,060	121,200	163,260	2,748	..	2,748	44,808	121,200	166,008
	Total ..	71,636	121,800	193,436	1,010,575	..	1,010,575	1,082,211	121,800	1,204,011
Kyoukpyoo	Foreign ..	12	..	12	..	..	..	12	..	12
	Coasting ..	18,371	200	18,571	12,586	..	12,586	30,957	200	31,157
	Total ..	18,383	200	18,583	12,586	..	12,586	30,969	200	31,169
Mergui	Foreign ..	9,517	5,076	14,593	14,201	1,050	15,251	23,718	6,126	29,844
	Coasting ..	27,907	3,356	31,263	36,859	64	36,923	64,766	3,420	68,186
	Total ..	37,424	8,432	45,856	51,060	1,114	52,174	88,484	9,546	98,030
Moulmein	Foreign ..	113,464	6,445	119,910	844,042	2,887	846,929	95,7506	9,332	96,6838
	Coasting ..	553,346	305,745	859,091	545,721	89,930	635,651	1,09,9067	395,675	1,49,4742
	Total ..	666,810	312,190	979,001	1,389,763	92,817	1,482,580	2,056,573	405,007	2,461,580
Sandoway	Foreign ..	..	..	..	..	..	..	..	..	..
	Coasting ..	8,204	..	8,204	1,334	..	1,334	9,538	..	9,538
	Total ..	8,204	..	8,204	1,334	..	1,334	9,538	..	9,538
Tavoy	Foreign ..	3,785	6,032	9,817	6,039	110	6,149	9,824	6,142	15,966
	Coasting ..	35,137	270	35,407	23,948	7,123	31,071	59,085	7,393	66,478
	Total ..	38,922	6,302	45,224	29,987	7,233	37,221	68,909	13,535	82,444
Province of British Burma	Foreign ..	3,795,691	50,853	3,846,544	6,560,957	4,277	6,56,5234	10,356,648	54,930	10,411,578
	Coasting ..	3,244,942	1,444,190	4,688,737	1,824,974	889,898	2,71,4872	5,069,916	2,336,689	7,403,605
	Total ..	7,040,633	1,495,042	8,535,084	8,385,931	894,175	9,280,106	15,426,564	2,388,619	17,815,183

Proportions of the private trade at each port.

127. The total
two years have been
of the province in the

	1879-80.		
	Per cent.		
Rangoon	67·02		
Moulmein	13·04		
Akyab	12·32		12
Bassein	6·33		6·7
Mergui	·60		·55
Tavoy	·53		·46
Kyoukpyoo	·12		·17
Sandoway	·04		·05

Proportions of the import trade taken by each port.

128. The bulk of the foreign import trade is with the chief port of the vince, Rangoon, which took in the year of re 94·83 per cent. of the value recorded under that he against 93·13 per. cent. in the year immediately pr ceding, leaving a balance of 5·17 and 6·87 per cent. respectively, which was thus apportioned :—

	1879-80.	1880-81.
	Per cent.	Per cent.
Moulmein	5·10	8·12
Akyab	·52	·63
Bassein	·49	·78
Mergui	·37	·38
Tavoy	·39	·26

In 1880-81 there were no imports from foreign countries into Sandoway, while those into Kyoukpyoo aggregated £12, or ·0003 per cent., only. In the coasting import trade, Rangoon participated to the extent of 54·03 per cent. in the year of report, against 61·07 per cent. in 1879-80; Akyab, 22·17 per cent., against 20·80 per cent.; Moulmein, 18·32 per cent., against 15·42 per cent.; Bassein, 3·49 per cent. against ·93 per cent.; Tavoy, ·75 per cent., against ·81 per cent.; Mergui, ·67 per cent., against ·55 per cent.; Kyoukpyoo, ·40 per cent., against ·31 per cent.; and Sandoway, ·17 per cent., against ·11 per cent. respectively.

Proportions of the export trade contributed by each port.

129. Of the exports to foreign countries, Rangoon shipped, in 1880-81, 56·72 per cent., against 56·90 per cent. in 1879-80; Akyab, 14·70 per cent., against 13·05 per cent.; Bassein, 15·35 per cent., against 17·33 per cent.; Moulmein, 12·90 per cent., against 12·27 per cent.; Mergui, ·23 per cent., against ·22 per cent.; and Tavoy, ·10 per cent., against ·23 per cent. No shipments were made at Kyoukpyoo and Sandoway. To the coasting export trade of the year under review Rangoon contributed 67·01 per cent., against 69·69 per cent. in the previous year; Moulmein, 23·41 per cent., against 18·45 per cent.; Akyab, 6·46 per cent., against 8·88 per cent.; Mergui, 1·36 per cent., against 1·61 per cent.; Tavoy, 1·15 per cent., against ·77 per cent.; Kyoukpyoo, ·46 per cent., against ·15 per cent.; Bassein, ·10 per cent., against ·43 per cent.; and Sandoway ·05 per cent., against ·02 per cent.

130. The following table exhibits the percent- of trade during the last five official years :—

		Merchandise.			Treasure.			Grand Total.		
		Imports.	Exports.	Total.	Imports.	Exports.	Total.	Imports.	Exports.	Total.
...	Foreign ...	17·3	30·8	48·1	0·6	0·1	0·7	17·9	30·9	48·8
	Coasting ...	20·2	13·3	33·5	14·4	3·3	17·7	34·6	16·6	51·2
	Total ...	37·5	44·1	81·6	15·0	3·4	18·4	52·5	47·5	100·0
877-78 ...	Foreign ...	14·5	30·5	45·0	0·4	0·1	0·5	14·9	30·6	45·5
	Coasting ...	17·6	15·9	33·5	17·2	3·8	21·0	34·8	19·7	54·5
	Total ...	32·1	46·4	78·5	17·6	3·9	21·5	49·7	50·3	100·0
878-79 ...	Foreign ...	18·08	32·79	50·87	0·22	0·05	0·27	18·30	32·84	51·14
	Coasting ...	18·30	14·14	32·44	11·26	5·16	16·42	29·56	19·30	48·86
	Total ...	36·38	46·93	83·31	11·48	5·21	16·69	47·86	52·14	100·00
1879-80 ...	Foreign ...	17·71	33·91	51·62	0·32	0·06	0·38	18·03	33·97	52·00
	Coasting ...	17·78	11·53	29·31	11·89	6·80	18·69	29·67	18·33	48·00
	Total ...	35·49	45·44	60·93	12·21	6·86	19·07	47·70	52·30	100·00
1880-81 ...	Foreign ...	21·31	36·83	58·14	·28	·02	·30	21·59	36·85	58·44
	Coasting ...	18·22	10·24	28·46	8·10	5·00	13·10	26·32	15·24	41·56
	Total ...	39·53	47·07	86·60	8·38	5·02	13·40	47·91	52·09	100·00

Private treasure transactions, Foreign and Indian.

131. The transactions in treasure with countries beyond the province will be found detailed in the under-noted statement, in which the values of the four pervious years are also given for comparison :—

Countries	1876-77.		1877-78.		1878-79.		1879-80.		1880-81.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£	£	£	£	£	£	£	£	£	£
Foreign countries	68,272	15,681	64,958	12,453	86,708	8,493	54,282	9,396	50,653	4,277
Bengal ..	1,396,482	2,29,444	1,869,862	333,164	459,742	552,087	1,347,118	1,004,798	1,174,556	675,942
Bombay ...	176,000	.	..	..	...	...	775	...	...	...
Madras ...	37,260	2,505	460,170	465	1,123,350	800	396,250	...	99,494	400
Indian ports not British .	...	...	...	...	1,350	...	...	...	100	...
Total .	1,642,014	247,630	2,414,990	346,082	1,621,150	561,380	1,798,425	1,014,194	1,324,803	680,617

The figures for the year under report exhibit very marked decreases, both in imports and exports when compared with those of 1879-80, and a reduction of about £140,000 in the quantity of specie remaining in the country on the year's transactions. This was no doubt owing to the comparatively low prices paid for rice during the season of 1881.

Private merchandise, Foreign and Indian.

132. The mean difference between imports and exports in 1880-81 was £640,000, while the difference between the value of merchandise imported from foreign countries and India and that exported to those countries was £1,400,000, as the following statement shows :—